

INSTITUTE OF POST HARVEST TECHNOLOGY

ANNUAL REPORT 2012

Head office:
G-22 Ministry of Agriculture
"Govjana Mandiraya",
No:80/5, Rajamalwattha lane
Battaramulla
Sri Lanka.

Research and Development Centre :
Jayanthi awatha.
Anuradhapura,
Sri Lanka

Message from the Chairman

At present, Agri-Business sector plays vital roll under current economical situation in Sri Lanka. However, most of the local farmers still followed traditional agricultural and post harvest practices. Therefore, high post harvest losses are counted during marketing and postharvest channel of food crops. It was estimated that post harvest loess of fruits and vegetable were 20-40% and it was 10-15% of grains and pluses. Post harvest and agri business sector was identified as one of the most priority area need to be developed by the "Mahinda Chinthana" development policy of the government.

Accordingly, the Institute of Post Harvest Technology (IPHT) engaged to fulfill of requirement of "Mahinda Chinthana" past year 2013 by the aiming of minimizing post harvest loesses and improving the quality of agricultural produce. IPHT was conducted tremendous number of research projects, training and development programmes for developing post harvest and agric business sector in the country. Therefore, it can be observed, year by year it has been created high demand for IPHT development projects. In future it will be planed to expand the service of IPHT for better future in agricultural food production and agri business sector in Sri Lanka and the benefit will flow to the general public of this country which is the ultimate aim of IPHT.

Jagath Palitha Jayawarna,
Chairman,
Institute of Post Harvest Technology

Message of the Director

The Institute of post harvest technology was established for needs of the country that is conducting research, training, extension and other development activities in the field of post harvest technology. The development activities are directed towards development and dissemination of improved technologies pertaining to both industrial and on cultivation farm handling, storage, preservation, primary and secondary food processing, value addition through product development & quality improvement, inspection and standardization & byproducts utilizations of agricultural commodities.

The year – 2012, was one of the most important year for the IPHT because IPHT was conducted historical research symposium. Research findings of more than 30 research projects were published in this symposium. I'm sure, findings of these research projects are immensely benefited for the farmers, fruits & vegetable sellers, rice millers and other stake holders to improving and updating their technologies used in the post harvest industry. In addition to that IPHT conducts several important development projects and rural farmers, farm women, unemployed youth and other stake holders were directly benefited through these projects.

The IPHT is planned to expand human and other resources and infrastructure facilities in future. This will create avenue for expansion of our service to the stake holders in an effective manner. The ultimate aims of the IPHT are given fullest contribution to the development of the post harvest sector of the country.

Dr. (Mrs) B.M.K. Swarnashika Thilakarathne,
Director,
Institute of Post Harvest Technology

Institute of Post Harvest Technology
G-22 Ministry of Agriculture,
“Govjana Mandiraya”,
No:80/5, Rajamalwattha lane,
Battaramulla.
31 - 03 -2013

Hon. Minister of Agriculture
Ministry of Agriculture,
“Govjana Mandiraya”,
Battaramulla.

Hon. Minister,

ANNUAL REPORT – 2012

In terms of section 14(2) of the Finance Act No. 38 of 1971, I have the honour to submit to you the Annual Report and the Statement of Accounts of the Institute of Post Harvest Technology, for the year 2012.

Yours faithfully,

J.P.Jayawarne
Chairman
Institute of Post Harvest Technology

INSTITUTE OF POST HARVEST TECHNOLOGY

BOARD OF DIRECTORS

Name	Position	Attendance
Mr.Jagath Palitha Jayawarne	Chairman	06 days
Lawyer Gunarathne Gallage	Vice Chairman	05days
Dr. D.B.T.Wijeratne	Director	06 days
Mr.Palitha Godagamage	Director	06 days
Mr. Ananda Abewickrama	Director	06 days
Mr.N.P.Sameera Hettiarachchi	Director	06 days
Mrs.Sumana Yapa	Director	06 days

The meeting were convened in the year on the following days

2012.01.31, 2012.03.26,2021.05.07.,2012.07.24,2012.09.27,2012.12.04.

AUDIT AND MANAGEMENT COMMITTEE

Name	Position	Attendance
Mrs.Sumana Yapa	member of the Board of Directors of the IPHT (Chairman ,Audit and managemt Committee)	03 days
Mr.Gunarathne Gallage	Vice Chairman	02dyas
Dr.Mrs.B.M.K.S. Thilakarathne	Acting Director -IPHT	03 days
Mr. R.K.A.P. Ramanayake	Deputy Director (Admin) /Accountant - IPHT	03 days
Mr. R.M.D. Rathnayake	Internal Auditor-IPHT Convenor, Audit and Managemnt Committee	03 days
Mrs.M.K.I.Padmini	Asst. auditor General Auditor Generals' Department	
	Observer Audit and Managemnt Committee	01day
Mr.H.N.M.S.Herath	Audit Manager Auditor Generals department	
	Observer Audit and Managemnt Committee	02 days
Mr.W.K.L.E.Wallavita	Chief Internal Auditor Ministry of Agriculture	
	Observer Audit and Managemnt Committee	02 days

The meeting were convened in the year on the following days:08.05.2021,27.09.2012,04.12.2012

OUR VISION

To be the centre of excellence in Post Harvest
Technology

OUR MISSION

To enhance productivity and facilitate
competitiveness of the agribusiness sector through
Post Harvest Research and Development.

INSTITUTE OF POST HARVEST TECHNOLOGY

ANNUAL REPORT - 2012

1. OVERVIEW

The Institute of Post Harvest Technology (IPHT), operating under the Ministry of Agricultural Development was established on 19th June 2000 by the Extraordinary Gazette of the Democratic Socialist Republic of Sri Lanka No. 1137/10 under the provisions of the State Agricultural Corporations Act. No. 11 of 1972 for the purpose of carrying out post harvest research and development activities pertaining to cereals, pulses, oil seeds, other field crops, fruits, vegetables and spice crops. The Institute has taken over the functions of the Rice Processing Research & Development Center (RPRDC) of the Paddy Marketing Board, which was set up with FAO/UNDP assistance in 1976. The Institute is regarded as the "apex" Institute in Sri Lanka where all areas of crop post harvest research and development activities, namely, harvesting, handling, storage and preservation, primary and secondary processing, product development, quality assurance and by-product utilization are carried out.

The Objectives of the Institute

According to the mandate given in the gazette notification, the Institute of Post Harvest Technology is supposed to serve as the coordinating body to bring together all agencies concerned for the purpose of identifying and prioritizing the research needs and implementation of programmes for the development of the post harvest technology in Sri Lanka. The institute has to achieve the following objectives by conducting research and development activities pertaining to post harvest technology of perishable and durable food crops.

- a) Prevention of post harvest losses occurring in grains, field crops, fruits, vegetables and spice crops by introducing improved, cost effective technologies so that the incomes of the rural farming sector will be increased as a result of the increase in their marketable surplus. At national level, such measures would increase the quantity of essential food items available for consumption.
- b) Prevent the deterioration in quality occurring in grains, other field crops, fruits, vegetables, and spice crops due to adoption of improper post harvest handling, storage and processing techniques so that the quality of these essential food commodities reaching the market is significantly improved. Improvement of product quality will enable the farmers to sell their 'value added' produce at an attractive price in the competitive market and thereby increase their incomes from agriculture.
- c) Prevent the nutritional losses occurring in cereals, pulses and other food crops, fruits, vegetables, and spice crops due to use of improper post harvest techniques and thereby increase the nutritional status of the country.
- d) Improve farm level storage and preservation facilities to enable the farmers to sell their commodities during off seasons at attractive prices and thereby increase their incomes.

- e) Introduce improved post harvest techniques that utilize minimum labour in order to reduce production costs of agricultural commodities.
- f) Develop and transfer viable agro-based industries at rural level in order to increase income and employment opportunities of the rural farming sector and thereby improve their standard of living.
- g) Popularize the use of foods prepared from grains, pulses, fruits, vegetables, and spice crops among consumers in order to create a higher market demand for the local grain production. Increased consumption of these foods of high nutritional value will also lead to an improvement in the nutritional status of the country.

1.A brief account of IPHT activities.

Research activities

According to the research programme for 2012, the research activities of the Institute, continued to solve technological problems confronting the post harvest industry, include both fundamental and applied research, although the latter predominates in the research efforts. During the year 2012, eight research projects(08) were initiated and seventeen (17) research projects were continued from year 2011. In addition to disseminating these research finding within the post harvest sector for it's improvement, the results of the studies were published in the proceedings of the Sri Lanka Association for the Advancement of Science, Institute of Engineers of Sri Lanka, Symposiums conducted by different universities and international journals. Following research projects were continued from year 2011 and carried out during diferent quarters of the year and completed.All the technologies testedwith the end users(farmers,smll and medium level entrepreneurs) by field trials,field equipments,sensory evaluations and compared.

- a) Assessment of rice processing vilage programme
- b) Development of an energy efficient particle grader for rice flour industry.
- c) Development of small scle paddy dryer
- d) On the role of the pre geletanization in the quality improvment of rice flour
- e) Process improvement of paddy paboiling in rice milling industry.
- f) Formulation of edible fruit wax for commercial use
- g) Study of the use GRAS copounds to control post harvest diseases in tomato.
- h) Use of plastic crates in super market supply chain: a case study
- i) Characterization of antioxidant properties of selected medicinal plant available in Sri Lanka and development of rice based herbal food products.
- j) Development of Murunga(*Moringa cleifera*)leaves based products.
- k) Development of novel rice based snacks

Approved projects for the year 2012

- a) Development and tesing of pedal cum motor operated paddy cleaner.
- b) Development of ready to use rice noodles.
- c) Evaluation of handling practices and effect of hermatic conditions of cocoons for storage of grains.
- d) Evaluation of screw type oil extractor for extraction of sesame oil..
- e) Quality evaluation of locally produce rice available in open market.

Collaborative programmes

The IPHT was able to arrange collaborative research programmes with the National universities by providing the facilities for under graduate students to conduct final year research projects at the IPHT in the field of Agricultural Engineering and Food/ Postharvest Technology. During the period under review, one student from the universities of Rajarata completed their final year research projects successfully under the supervision of IPHT research staff.

Technology dissemination

During the year 2012 the IPHT conducted following development projects island-wide for effective dissemination of post harvest technologies developed by the institute. These projects were funded by "Api Wawamu-Rata Nagamu" Programme.

- a) Reduction of postharvest losses in fruits and vegetables by adopting appropriate pack house technologies at farm level
- b) Improvement of medium scale rice mills to improve quality of rice.
- c) Establishment of rice noodles production factory.
- d) Initiation of rice based product factories.
- e) Introduction of the improved fruit and vegetables mobile retail stall
- f) Awareness creations and conducting of the awareness training programmers on post harvest technology
- g) Establishment of model villages.
- h) Introduction of rice cream machine in district level

The Following projects were carried out by Treasury funds.

- a) Initiation of spice processing micro enterprises at rural level
- b) Improvement of rice flour milling industry
- c) Initiation of Rice and Rice Based Products Manufacturing Micro-Enterprises
- d) Initiation of fruit based manufacturing micro enterprises at rural level

Training activities

The training activities of the IPHT are production/ extension oriented, aimed towards updating the knowledge of producers, processors, traders and extension workers, from both public and private sector agencies, in the field of Post Harvest Technology of grains, cereals, root & tubers, fruits and vegetables. However, to a limited extent, research oriented courses were also conducted providing experience in the research methodology for students of universities and other academic institutions. The demand for IPHT's training increased significantly during the year 2012. During the year under report 72 residential training courses including study visits were conducted and 2757 individuals were trained.

Extension activities

Technology dissemination through field level extension work, which is one of the major activities of the institute, was continued during the year 2012. To ensure effective technology transfer activities to the large number of farmers collectors of fruits and vegetables and traders, ten (10) Field Centers were established at different district in island wide. Anuradhapura, Ampara, Polonnaruwa, Nuwara Eliya, Kandy, Lunama(Hambantota), Galle, Ambanpola (Kurunegala), Matara and Jaffna are the Field centers established under this programme.

The extension activities conducted in Ampara & Monaragala, districts covered by Ampara field center, Hambantota district activities by Lunama field center, Nuwara Eliya & Badulla districts covered by the Nuwara Eliya field center, Kandy district by the Kandy field center, Galle district by Galle field center, Kurunegala district by Ambanpola field center, Matara district by Matara field center and field extension activities of other districts including Vauniya, Mannar and Trincomallee Baticoloa, Jaffna and Kilinochchi were conducted by Jaffna field centre. The extension activities of Anuradhapura and Polonnaruwa districts were conducted through the Field Extension unit of the R&D centre, Anuradhapura and the extension division of the IPHT at Anuradhapura. During the period under review, 5815 farmers, processors, traders and extension workers, both from public and private sector organizations were trained under the IPHT extension programme.

Consultancy and advisory services

The IPHT has progressively been sought after for consultancy and advisory services by both public and private sector organizations, as well as the Cooperative sector, which are either directly or indirectly involved in post harvest operations. By providing these services, the institute was successful to provide 71 numbers consultancies in establishing several new processing plants, modernizing existing plants and to solve technological problems encountered by rice millers and food processors in their day-to-day operations.

Quality investigations

The Institute played an important role in exercising quality control of agro/food products in the country by analyzing samples received from both private and public sector organizations for their physical and chemical quality. 17 samples were analyzed under the period of review.

Publications

During the year 2012, the institute continued to publish extension leaflets and handouts, to publicize the activities and new technologies of the IPHT. In this context, 24660 extension leaflets and handouts were distributed among trainees

Institutional development

Whilst continuing the primary activities of the institute, namely, research, training, extension, consultancy/advisory and other development activities in Post Harvest Technology to achieve its goals and objectives, the 08 numbers of infrastructure facilities for research and development were improved during the period under review.

Summary

This report is a summary of the activities of the IPHT during the year 2012 and is bound to generate interest in the people who are concerned with the subject of Crop Post Harvest Technology.

2. HIGHLIGHTS OF RESEARCH ACTIVITIES

Research, being the main activity of the IPHT, was directed towards solving technological problems confronting the post harvest industry.

The following are some of the highlights of the research programmes conducted by the IPHT during the year 2012

2.1 Completed research projects

2.1.1 Post harvest technology of grains and cereals

2.1.1.a. Assessment of rice processing village programme

The rice processing village program was first launched by IPHT in 2005 with objectives of to increase the income level of the paddy farmers through selling rice instead of paddy, initiation of agro based self employment opportunities at rural level, high quality rice processing at rural level, development of small/medium scale rice mills to produce high quality rice and availability of high quality rice at a lower price to the consumers. The project was carried out in major paddy producing areas. This study was done to assess the present status and the viability of this program as a rural level income generation activity.

Data were gathered by a field survey, key informant interviews and secondary data sources. A sample of 150 rice processing families was selected randomly from Anuradhapura and Polonnaruwa districts. Data were gathered under the use of five capital sources used for this business; namely, physical, financial, natural, human and social capital sources.

The study revealed that, 56% of the participants to the survey were continuing to carry out the rice processing as an income generating activity. Another 37% had temporarily discontinued the business. And the rest 7% had permanently discontinued the activity. But all these discontinued participants were using this technology to parboil paddy for their home consumption. The major reason for this temporary discontinuation had been the loss of paddy cultivation due to adverse climatic conditions that prevailed during the study period.

Further the study showed that the rice processing families who had been continuing this activity were earning an income that ranged between Rs. 3500/= and Rs. 50,000/=. All these continuing participants were also suffering from crop destruction and scarcity and high price when purchasing paddy for the business.

But all these participants had been using all the five capital sources effectively for the betterment of the enterprise. The study revealed that they had developed the physical, financial, social and human capital in favour of the rice processing activity. And they had effectively used the available natural capital as well.

All claimed that this is a very successful program to be introduced as a livelihood development, income generating activity to be introduced to the rural community.

out of the total sample size (150 participants) only 7% had permanently discontinued the rice processing activity as a self employment venture. However, all the (100%) of the sample taken were using IPHT introduced improve parboiling technique for their home consumption. Further the study revealed that 10% of the sample taken was comprised of beneficiaries who had adopted the technology on their own without project involvement.

2.1.1.b. Development of a small scale paddy dryer

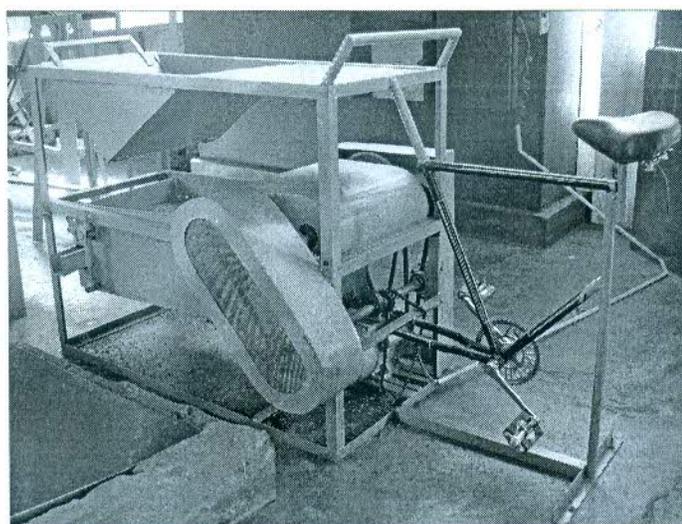


Objective of this project is development of a small scale paddy dryer for drying parboiled paddy and freshly harvested paddy.

As a solution for the two drying problems present themselves with paddy that is, drying of harvested paddy before storage and drying of parboiled paddy before milling. Sun drying is the most common practice in Sri Lanka, since it is low cost and simple technology. However, lots of problems are encountered in sun drying. Although large scale parboiled paddy processors have large scale paddy dryers, small scale parboiled rice producers are followed sun drying. It becomes extremely difficult to do this in rainy days and the days during not enough sun light. Therefore, they can not be done parboiling of paddy continuously. At present threshing machines for instant combine harvesters, Tsunami machines etc; are used to harvest paddy. Most of the time high moisture paddy will come due to not harvesting paddy at proper time. This paddy is not in a suitable condition to store. It has to face lot of problems if store high moisture paddy.

Above two problems a small scale dryer was developed under this project. According to the research works carried out, this dryer can be used to dry 700 kgs of freshly harvested paddy to reduce moisture content from 21% (wb) to 14% (wb) that suit to store, within 4 – 4 ½ hrs. And also, about 600 kg of parboiled paddy containing 35% m.c can be dried to moisture content of 14% that suit to milling within 8-9 hrs. Expenditure for the dryer is about 350,000SLR including the shelter. Paddy husk and fire wood are used as fuels to obtain hot air

2.1.1.c. Development and Testing of pedal-cum-motor operated paddy cleaner



Paddy parboiling at rural level at small scale capacity is practiced in villages in major paddy producing areas of Sri Lanka. They are using either the small scale method introduced by IPHT or 'Goviya' method for parboiling. The daily capacity of these small scale processors is around 150-300 kg per day. Grain should be cleaned and graded before parboiling and processing. At present paddy is cleaned at paddy field either by combine harvester by large scale farmers or manually by the natural wind by small scale farmers.

The objectives of this project are to development of a low cost and small capacity cleaner for cleaning paddy for small scale farmers and processors and to determine machine and operating parameters for effective separation of paddy grains. The work has been done india by Kachru and Sahay in 1990 for other grains such as wheat, soy been and chikpea. The capacity of their cleaner 350-600 kg/h for pedal operated cleaner. The purity of the seperated grain was in between 99.6-99.9%. Screen effectiveness of 71.3% to 99.6% for different materials. How ever they have not tested the machine for paddy.

The aim of this project was to design and development of the same cleaner and test it for paddy. The fabricated paddy cleaner is suitable for small scale paddy processorers in rural areas in Sri Lanka. Capacity of the the cleaner is around 350 kg per hour. The cost of the machine is 75,000/=with the single phase motor. While in the pedal driving mode ,the capacity is around 200 /hr. One man can operate the cleaner and operateing with 15 A current supply are an additional advantages. The purity of the seperated grain was in between 99-92%. Screen effectiveness of 57% to 72% for different varieties.

2.1.1.d. On the role of Pre-Gelatinization in the quality improvement of rice flour

Objectives o this project are to prepare pre geletanized rice flour, to study the variation of physicochemical properties of pre geletinised rice flour in different hydrothermal treatment and to recommend a process of producing in industrial scale.

Pre-gelatinized rice flour has been widely used for many foods as a major ingredient, bulking agent or thickening agent. Many popular oriental foods, such as delicate Chinese rice cakes, baby foods and instant rice milk, are also made from pre-gelatinized rice flour. Traditionally, grinding the roasted or puffed rice kernel from raw rice or parboiled rice is the way to produce pre-gelatinized rice flour. It has been realized that the physicochemical and functional properties, which are different mainly due to the rice varieties and processing methods, significantly affect the applications of pre-gelatinized rice flours (Damir, 1985; Hsieh & Luh, 1991; Luh, 1991; Lu, Chen & Lii, 1994). But, there's no any research publication found in Sri Lanka for pre-treated rice flour.

The popular Sri Lankan paddy varieties, BG94/1 are selected for this study. Paddy will be treated varying soaking time, steaming temperature and steaming time. This will predict the effect of moisture content and pasting properties of treated rice. Lab scale apparatus, soaking bins, water bath, and oven will be used for preparation of pre-gelatinized paddy. Steamed paddy is immediately dried in an oven until the moisture content of steamed rice less than 12%. Then paddy samples de-husks using lab scale rubber roll Sheller and whitens with the polisher with the bran removal percentage of 60 %. To make rice flour, Disk mill was used.

The effect of soaking time, steaming temperature and steaming time on the pasting properties of hydrothermally treated rice were estimated by the mean and signal to noise ratios, the larger the better (SN_L) at every level, based on a L_{27} and L_9 orthogonal array of the Taguchi method (Montgomery, 1991).

This study proved that pasting and nutritional values are markedly dependent on hydrothermally treatments. Under the different conditions of hydro-thermal treatments, paddy undergoing physical modification resulting in the delay of Tg, reduction in PV, and increase in FV. While the paddy was treated under the high moisture condition and elevated temperature (90C) for extended time, the degree of gelatinization (SG) of starch was greatest. The modification of starch granules or the degree of re-association of starch molecules of rice are reflected by the changes of their hydration properties before and after hydrothermal treatments.

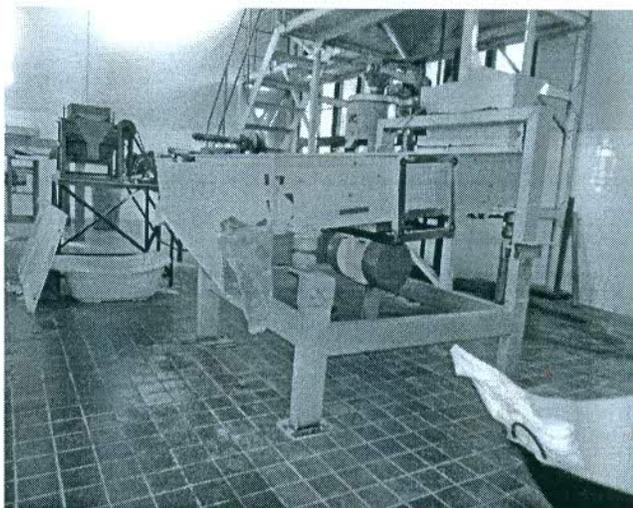
The degree of gelatinization (SG) of starch as measured by using Barbender method , indicate that treatment which was prepared paddy under rinsed and equilibrated and steaming 20 minutes time the highest Tg and the lowest PV, FV, BKD and TSB could be obtained. And it is recommended that to get the better results in future this treatment must be applied in different Sri Lankan Varieties and must be milled with different mills.

2.1.1.e Development of an efficient screening unit in the process improvement of rice flour industry

Objectives of this project are to develop a high screening efficient flour shifter for medium scale processes and to determinethe energy reduction in the rice flour process line by increasingscreening efficiency and to determine the performance enhancement of rice flour process line. An expected outcome are to reduce the cost of productionof rice flour, to reduce the energy requirment of the flour idustry and to develop the rice flour industry in the country.

One of the major problem of rice flour industry in Sri Lanka is un available of efficient flour sifter for medium level producers. The available medium level flour sifters has low capacity or more maintenance. This will reduce the production capacity and hence increase the cost of production of rice flour Therefore, IPHT has developed energy efficient high capacity vibro flour sifter for industry. This will effectively increase the capacity of process line and hence reduce the processing cost. Then the price of rice flour could be reduced. The flour sifter contained two vibro motors and sieve. Rubbers mount or bumpers are used to control the unnecessary vibration. The screen with frame is attached to the heavy frame or stand to bear the vibration of the screen.

Research and development Centre Anuradhapura. Vibro motors are selected and fixed to get proper vibration to the sifter. At the two vibro motors were fixed to the machine and evaluated the machine Then by changing the design single vibro motor was fixed to the machine and evaluated the performance of the machine. Use of single vibro motor give better performance The available medium scale horizontal flour sifter was evaluated and compare with the results. It is understood that developed vibro sifter increase the capacity with low cost and increase the performance of the fine and course flour separation



The single motor vibro flour sifter has given high screening efficiency of 96.21% At this efficiency capacity of the machine is 139.25 Kg/hour. It has given low power and labour requirements. Total cost of labour and power per Kilo Gram is Rs.0.69 without adding any other processing cost. Therefore, by considering all the above performance parameter of the machine We can recommend this vibro sifter for medium scale rice flour industry.

2,1,1,f.Quality evaluation of locally produce rice available in the open market of Sri Lanka

Objectives of this project are to evaluate quality of rice in the market, to evaluate the rice produce by the large scale rice mills in the rice export zone (Ampar, Polonnaruwa, Mnnar and Hambantota districts and to study the fields to be developed in the rice processing industry.

More than half of the world population consumes rice as their staple food and demand of rice increase with the population growth. The per-capita rice consumption of Sri Lanka was 86.80 kg in 1973 and it was 116.0 kg in 2008 (Dep. of Census and Statistics). It reveals that per-capita rice consumption increased by 30 kg with in 35 years in Sri Lanka.

The paddy production of Sri Lanka also increased 4.2 million metric tons in 2011 and it is 13% more than the self sufficiently level of Sri Lanka. (Central Bank Annual Report 2008).

There are 879,000 paddy farming households and 8,500 rice mills process paddy in Sri Lanka. The Institute of Post Harvest Technology (Successor of Rice Processing Research and Development Center) has been conducted training programs and consultancy activities for rice millers to produce high quality rice since 1976. The RPRDC produce high quality samba rice at first in 1984, in Sri Lanka. The quality of rice available in the local market was not at acceptable level before 1984. The results of the study on qualitative analysis of rice available in local markets revealed that there were Aflatoxin present in locally available parboiled rice in 1980's in Sri Lanka. The Sri Lanka Standard Institute (SLSI) introduced standards and formulated four grades system for raw rice and parboiled rice in 1984.

A study conducted on evaluate quality of locally produce rice in the open market by the RPRDC in 2000 has revealed that 85% of the raw rice and 76% of the parboiled rice were substandard quality and does not fall any grade of the SLSI grading system. The remain 15% of raw rice and 24% of parboiled rice fall into only Grade II and Grade III of the grading system. Any rice sample does not fall Premium grade or Grade I of the SLSI grading system (Swarnasiri D.P.C 2002).

The study conducted by the IPHT in 2008/ 2009 revealed that there were 3% of raw and parboiled rice in the local market fall in Grade I of the SLSI grading system. The remain 38% of raw rice and 32% of parboiled rice fall in Grade II and Grade III of the SLSI grading system. The substandard quality reduced from 85% to 59% of raw rice and from 76% to 65% of parboiled rice compared to results of year 2000(Swarnasiri D.P.C 2009).

The recent results of the study shows that 1% and 10% of raw rice fall in premium and Grade I of the SLSI grading system respectively. The grade I quality standards fall in export quality raw rice and the results revealed that both premium and Grade I rice , that is 11% of raw rice available in export quality in the local market of Sri Lanka in 2012. According to the results analyzed up to now 31% of raw rice fall in to Grade II and Grade III. If the rice millers target to export market they can improve their rice quality further and produce Grade I and premium quality rice.

The results show that 48% of parboiled rice falls in to Grade I, II and III of the SLSI grading system. Hence, It can be concluded that quality of the rice available in the local market improved 25% compared to results of the year 2000.. However, the moisture content of the rice and the broken grain percentage are the critical factors which reduced the quality of the rice in the local market of Sri Lanka in the recent past.

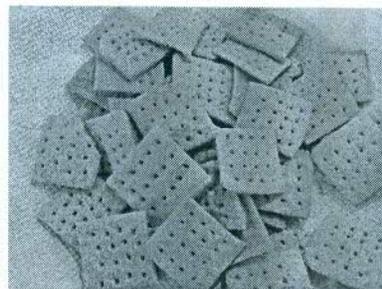
2.1.1.g Characterization of antioxidant properties of selected medicinal plants available in Sri Lanka and development of ready to use rice based herbal foods

Steady increase in paddy production has been observed leading to self sufficiency about 13%, even though rice is the staple food of Sri Lankan community. Excess production can be utilized through the introduction and production of novel rice based food items. This research project was initiated with aim to develop novel rice based food products that helps to increase the consumption of paddy surplus.

Novel rice based food items were produced that having a higher nutritional value due to enrichment of the products with herbs such as 'Hathawariya', 'Karapincha' and 'Iramusu'. 100% rice flour cookie and 70% rice flour cracker have been developed adding the above herbs powder mixture. It is very important to have food items that rich with higher antioxidant values, such as above herbs, for body function.



Herbal Rice Cookie



Herbal Rice Cracker

2.1.2. Post harvest technology of spice crops

2.1.2.a. Process Development of Goraka (*Garcinia gummi-gutta*) Powder

Objective of this project is to prepare 'Goraka' powder as an ingredient of a ready to use "Ambul Thial" mixture.

The Institute of Post Harvest Technology has developed an instant fish curry mixture recipe called "Instant Ambul thiyal mixture". The main ingredient of "Ambul thiyal mixture" is Goraka (*Garcinia gummi-gutta*) powder. There was no method found for preparing Goraka powder in small or medium scale level yet. Therefore, the main objective of this study is to develop a method for production of superior quality Goraka powder at a competitive price in commercial level with a view to recommending the suitable method for the Sri Lankan spice processing industry. The final product was evaluated in terms of particle size obtained after grinding, color value, moisture content, and acidity of ground product. The dried Goraka cloves available in the market were used to produce Goraka powder as the main raw material. To clean and remove dust particles, 'Goraka cloves' were washed with potable water. Cleaned Goraka cloves were soaked for 12 hours in room temperature until get them soft. Sample was drained off and cloves were sliced into 5-7 mm size particles and soaked in cold water at 20 °C for 10 minutes. The slices were drained off and a small scale hand operated chopper was used to obtain the Goraka pulp. Then the pulp was dehydrated using an oven at 55 °C for seven hours. The Disk mill performed best as the single machinery among two types of grinding mills; Disk mill and Plate mill in terms of grinding dried Goraka pulp. One pass through Disk mill; 23 mm Disk type with 500 micron sieve produced the particle size of 500µm Goraka powder. Color of the ground powder was closer to the grey color in red and yellow margins which reveals by the color space (L*, a*, b*) of 33.38, 2.32 and 3.24. The moisture content and Hydroxycitric acid content are 8.15%, and 19.97% respectively. The Goraka powder prepared is useful in the preparation of variety of ready to use spice products such as Sri Lankan Ambul thiyal mixture, curry powder mixture for meat, etc.

2.1.3 Post harvest technology of fruit and vegetables

2.1.3.a Formulation of edible fruit wax for commercial use

Loss of weight and reduction of overall quality characteristics of fresh fruits due to moisture evaporation and other metabolic activities are most critical economic problems for both producers and retailers. In Sri Lanka most of the fruits grown send to local market without given any treatment for shelf life extension. This affects for wilting and shriveling and also helps to higher economic loss and less demand for local produce. The present investigation relates to find out the applicability of different compositions of lipid based edible coating (wax) for shelf life extension of fruits like papaya, guava, mango, etc. which include palm oil, glycerol, Sorbitan monooleate (tween 80) and guar gum . In accordance with the present investigation discovered that the shelf life of fresh papaya and mango can be extended up to 10 days and guava for 07 days by means of application of an edible coating formula (Wax) without quality deterioration

2.1.3.b Use of plastic crates in super market supply chains: a case study

Plastic were introduced to super market supply chains also during the programme conducted to minimize the post harvest losses of fruits and vegetables occur due to use of improper packaging methods. A scientific study was conducted to evaluate the use of plastic crates within the super market supply chains during the perishable transportation. Four supply chains of Cargils, Keels and Tropical healthy fruits were used for this study. Data was collected from farmers, regional collecting centres, transporters, main wholesale centres and retail outlets.

100% of farmers supplying fruits and vegetables to super markets use plastic crates and 30% of them use polysack bags occasionally. Due use of plastic crates, farmers' income have increased by 15-150% and postharvest losses reduced from 10-20% to 2-5%. At collecting centres, farmers are 20-40% higher prices than to outside market for their produce. All the vehicles own by companies are refrigerated trucks which are used to transport perishables. Wholesale centres receive 110-140 vegetable and 30-40 fruits types daily. Use of plastic crates has reduced postharvest losses in wholesale centres from 6-6.5 mt to 0.9-1.6mt and also income has increased by 20%. The main packaging method to transport fruits and vegetables is plastic crates. Use plastic crates has reduced postharvest loss from 20-30% to 3.5-6% during the supply chain while preserving the quality

2.2 Research projects published in 2012

Following research projects completed in 2012 were published in different sources of scientific journals as mentioned below.

Local Journals

Wijewardene R.M.N..A. and Thilakerathne, B.M.K.S.(2012), Development of composite wax formulation for shelf life extension of papaya., Proceedings of International symposium 2012., Faculty of Agriculture, University of Ruhunu, Sri Lanka.

Rathnayake, H.M.A.P., Bandara., D.M.S.P., Dissanayake., T.M.R.,(2012) Rice quality evaluation of a medium scale paddy parboiling vessel., . Proceedings of the international Symposium of the Faculty of Agriculture, University of Ruhuna

W.M.C.B. Wasala, D.A.N. Dharmasena, T.M.R. Dissanayake and B.M.K.S. Thilakarathne (2012), *Physical and Mechanical Properties of Three Commercially Grown Banana (Musa acuminate Colla) Cultivars in Sri Lanka*, Tropical Agriculture Research, Vol.24(1), pp 42-53.

C.A.K. Dissanayake, S. De Silva, W.M.C.B. Wasala and B.M.K.S. Thilakarathne (2012), *An Investigation of the Rice Processing Village programme*, Tropical Agriculture Research, Vol.24 (1), pp 91-98.

W.M.C.B.Wasala, C.R.Gunawardhane, R.M.R.N.K.Rathnayake, R.M.N.A.Wijayawardhane, K.G.L.R Jayathunge, B.M.K. S.Thilakarathne and D.B.T. Wijerathne, (2012) *Study on feasibility of safe packaging for economically important vegetable transportation*, Proceedings of International Symposium on Agriculture and Environment held on 29th, Nov.2012 at Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburugamuwa.

Gunathilake D.M.C.C., Jenonsinton J and Thilakarathne B.M.K.S. (2012) Effect of chloride iron in soaking water for altering parboiled rice quality International Symposium- 2012 Faculty of Agriculture, University of Ruhuna, Sri Lanka.

Gunathilake D.M.C.C., Jenonsinton J and Thilakarathne B.M.K.S. (2012) Effect of the calcium carbonate soluble in soaking water for modifying parboiled rice quality Proc. 68th annual sessions SLAAS

2.3 On going research projects from 2012 to 2013

- b) Development of an energy efficient particle grader for rice flour industry.
- e) Process improvement of paddy pabailing in rice milling industry.
- g) Study of the use GRAS compounds to control post harvest diseases in tomato.
- f) Characterization of antioxidant properties of selected medicinal plant available in Sri Lanka and development of rice based herbal food products.
- g) Development of Murunga (*Moringa oleifera*) leaves based products.
- h) Development of novel rice based snacks
- l) Development of ready to use rice noodles.
- m) Evaluation of handling practices and effect of hermetic conditions of cocoons for storage of grains.
- n) Evaluation of screw type oil extractor for extraction of sesame oil.

2.4 Research projects completed by the students under the supervision of the IPHT staff.

During the year 2012, students from the Faculties of Agriculture of Universities completed their final year research project under the supervision of the IPHT research staff and the details are given below.

- 1) Evaluation of physiological and biological changes of the fresh fruits and vegetables in the storage conditions of prototype mobile stall
- 2) Suitability testing and evaluation of rice de stoner for pepper de stoning
- 3) Study of soft rot in carrots and possible control measures
- 4) Study on development and storage of dehydrated murunga leaves fortified bread spread
- 5) Evaluation on the stability for bulk packages (developed by IPHT) for leek transportation
- 6) Rice based snacks
- 7) Evaluation of physical and chemical Properties of three traditional rice varieties
- 8) Development of murunga based nutrimix
- 9) Evaluation of soaking time of "Madathavalu" rice
- 10) Production of Crackers by "Karapincha" and rice flour.
- 11) Production of rice based instant herbal drink

- 12) Murunga and murunga based products
- 13) Development of low sugar jam using Dragon fruit
- 14) Evaluation of Different pretreatments on prevention of browning of osmotically dehydrated "Ambul" banana
- 15) Studies on selecting suitable variety of egg plant for minimal processing.
- 16) Effect of temperature, pH and GRAS chemicals on soft rot in carrot caused by *Erwinia carotovora*.
- 17) Evaluation of package suitability (IPHT developed) of leeks Transportation

During the year 2012, a student from the Faculty of Agriculture of Rajarata University completed his final year research project under the supervision of the IPHT research staff and the details are given below.

2.4.1. Food preservative characteristics of dehydrated Murunga(Moringa Oleifera)leaf powder.

Murunga(Moringa Oleifera) is an underutilized plant in Sri Lanka with food,nutritional and medicinal value.This study was carried out o evaluate the food preservative characteristics of dehydrated Murunga leaf powder.Soya meat (textured soy protein) and dhal curries (cooked) and boiled rice (Suwandel and red rice) treated with different levels of Murunga leaf powder(1.5,2.5,4.5, and 6%) were selected for this experiment.

It is found that there is no any different and refusable taste,colour,odour and overall asseptability when mixed the food samples wih 4.5% of dehydrated murunga powder.This mixing will be helped to increase the shelf life of above food samples up to 16 hours at ambient conditions.

This study revealed that the dehudrated Murunga leaf powder could be potentially used to extendthe shelf life of cooked products such as rice and curry.

3. TECHNOLOGY TRANSFER

The development projects carried out by the IPHT during the year 2012 in order to ensure technology adoption, and their impact on the post harvest industry are described below:

3.1 Development projects under the programme "Api wawamu-Rata Nagamu"

3.1.1 Introduction of a mobile fruits and vegetables stall for retail sell

Fruits and vegetables suffer 30-45% heavy losses of total production due to use of improper postharvest practices in Sri Lanka. It was estimated around 15% to 20% losses occurred at retail selling. Therefore, provisions of proper conditions i.e. low temperature and relatively high RH at retail selling improve the quality and shelf-life of fruits and vegetables.

Size of the retail mobile stall was 180cm x 100cm x 90cm (length x width x height). It was design using cast iron, stainless steel sheet, glass and aluminum sheet. It has roof for protecting stored products from direct sun light and also wheels were fixed to the legs for moving one place to another. Ice cube was used for reducing the temperature and the same time its increase the relative humidity (RH) inside the stall. Hence, mobile stall maintain favorable conditions for extent shelf-life of fruits and vegetables. An ice bath is used in order to cool the products. 15kg of Ice cubes per day was required to maintain the cool temperature around 23C° - 24 C° inside the mobile stall. And also RH 85% to 95% condition was maintained while ambient temperature was observed around 33C° and RH 65% to 80%. Papaya, guava as fruits and egg fruit, tomato as vegetables were used for testing the performance of the stall. The results revealed that weight loss percentage of selected fruits and vegetables were significantly reduced in improved mobile stall in comparison to the control treatment. Color, TSS and firmness of selected fruits and vegetables were showed a significant improvement under treated conditions. Selected fruits and vegetables can be kept for seven days without quality deteriorations in improved stall where control samples withstand only three days. Finally it can be concluded that prototype retail mobile stall can extend the shelf life of selected fruits and vegetables while minimizing the postharvest losses.

Improved mobile stalls were introduced to the fruits and vegetable retail sellers at Kandy. Now they were successfully used these mobile stall for selling of fruits and vegetable in fresh form. The display area of improved mobile stall where fruits and vegetables have been kept was covered by the glass windows, hence it was maintain dust free clean environment for the fruits and vegetable. This was another reason for its attractiveness for consumer's especially foreign tourists and urban consumers.

3.1.2 Reduction of postharvest losses in fruits and vegetables by adopting appropriate pack house technologies at farm level

The objectives of this project to improve the productivity and sustainability of fruits and vegetable production systems and quality improvement of the produce by adopting appropriate pack house operations. Following activities were completed:

- A model pack house was constructed at IPHT (Institute of Postharvest Technology) premises for demonstration purposes to train personnel, involved in fruit and vegetable production and distribution

- 275 no of farmers in producing areas are trained to produce high quality produce by adopting appropriate handling operations with low cost machineries and equipments.
- 3 pilot scale pack house units were established in Anuradhapura, Nuwara-Eliya and Kandy districts with community based organizations and equipments and other facilities were provided directly to the farmer organization under 50% subsidiary price scheme.

3.1.3 . Establishment of model village programme

Under this project 07 villages in 07 districts were proposed to be established. Of the 07, 06 villages were established in Polonnaruwa, Kurunegala, Ampara, NuwaraEliya, Galle and Matara districts. The main objectives of this programme had been to minimize postharvest losses of agricultural crops, initiation and development of rural level agro based industries and income generation activities. All these activities will be based on the field requirement and the available resources of the selected village. Under this project the beneficiaries were trained on the required and relevant postharvest technologies. Further necessary equipment, machinery and financial assistance for other construction done were provided at 50% subsidized rate. The following benefits were given for the beneficiaries of the established villages.

	Activity	District					
		Kurunegala	Polonnaruwa	Nuwaraeliya	Ampara	Galle	Matara
1	Manufacturing rice based products (supply of equipment and modernization of processing plants)	04	-	01	-	04	01
2	Manufacture of rice flour (provision of flour processing machinery and sifters)	-	01	-	01	01	02
3	Manufacture of rice based products (supply of equipment and dryers)	-	-	02	-	02	02

4	Manufacture of tamarind based products (provision of pulping machine)	-	-	-	01	-	-
5	Modernization of rural level grain stores	09	10	-	10	03	-
6	Rural level rice processing (provision of parboiling vessels, construction of soaking tanks and drying yards)	11	10	-	03	-	-
7	Modernization of rice mills provision of destoners)	01	01	-	-	-	-

3.1.4. Introduction of rice cream machine in district level

Ice cream is a frozen dessert usually made from dairy product, such as milk and cream, and often combined with sugars, emulsifiers, colours, and flavors. However today the dairy based ice creams are very much popular among all people in every community in Sri Lanka. Non-dairy ice cream is a common feature in many countries. These are frozen products, which differ from ice cream in that the milk fat and milk solids are replaced with suitable vegetable fats and non dairy milk solids. Soy ice cream, made from soy milk is the only alternative non-dairy frozen dessert available in Sri Lanka and it is very much accepted by Sri Lankans. On the other hand non-dairy soy ice cream is the most popular alternative frozen dessert available for the people who are lactose intolerant or who do not eat dairy for other reasons.

Since rice is the staple food of Sri Lankans and the major food grain with high nutritive value, it is important to introduce novel rice based food products with remarkable characteristics. Hence rice based frozen desserts will afford a new way to deliver the health full benefits of rice to the people. Thus considering all above facts, this project was carried out in order to popularize rice cream production and consumption by establishing five rice crème processing units as models basically targeting the urban areas.

Objectives of this project are to popularize production and consumption of rice cream., to introduce a novel rice based product to the community. and deliver the health full benefits of rice to the people.

3.1.5. Initiation of Rice and Rice Based Products Manufacturing Micro-Enterprises

Sri Lankan staple food is rice and at present paddy production has reached to its' self sufficiency with a 20% excess production. This development project was started with an aim of development of rice based micro entrepreneurs(rice cakes, rice biscuits, rice murrukku and rice flakes) to produce rice based product at small and medium scale level through out the country. Under the above development project, 27 training programmes were conducted in eight districts including Kurunegala, Polonnaruwa, Anuradhapura, Galle, Matara, Kandy, Vavuniya and Ampara. 869 beneficiaries were trained with in the above training programmes through out the country. We have spent 0.216 million rupees to conduct the above training programmes and achieved 98 % of the projected target with in the year 2012



3.1.6. Modernization, establishment of rice mills to improve their rice quality

Rice quality improvement will become even more important in the future with Sri Lanka, like most other countries, entering into international as well as regional trade agreements and thereby opening its market to the outside world.

A recent survey conducted by the IPHT on quality of locally produced rice available in the open market has revealed that the rice quality produce from most of the rice mill is below the requirements of international standards.

The main factors contributing to reduction in rice quality are presence of high amounts of broken grains, paddy seeds, type admixture, impurities, damaged and discoloured grains and non-uniformity in bran removal.

Taking in to consideration the importance of increasing rice recovery levels and improving rice quality in local rice mills, the Institute Post Harvest Technology (IPHT) has embarked on a programme to improve the processing techniques of existing rice mills. through following activities:

Identification of deficiencies of the techniques presently adopted in the process line, Conducting a series of training programmes on improved rice processing techniques , Increase the knowledge to machinery selection, proper maintenance of machinery, selection of raw materials, proper storage techniques etc. are the main activities.

As well as assisting the rice millers in the preparation of feasibility reports, Provision of process layout plans, machinery and building requirement, Continuous monitoring the performance of the mills also included in the programme

3.3. Development projects under the IPHT funding.

3.3.1. Improvement of rice flour milling industry.

Institute of Post Harvest Technology (IPHT) has been engaging in research, training and other development activities on production of rice flour and contributes to solve problems in rice flour industry by giving all technical supports. The project "Improvement of rice flour Industry" is such main project that IPHT is engaged to achieve above task. Under this project Rice flour processing units are established by encouraging prospective persons to initiate new rice flour processing units and modernize the existing rice flour processing units as they can be able to produce high quality rice flour.

During the year 2012, 267 persons were trained. 12 rice flour processing units were established while 18 flour processing units were modernized. These beneficiaries were trained on high quality rice flour milling including selection of proper machinery, selection of rice, suitable flour milling machines, storage and packing of rice flour etc.

After training rice flour producers have started produced rice flour using dry method instead of wet methods and increased their production capacities. And also some millers have started to introduce their rice flour to market in form of both bulk and small packets.

As well as better quality rice flour were produced than previous existing quality.

3.3.2. Initiation of spice processing micro enterprises at rural level

This project aimed to disseminate improved spice processing facilities within the project area to increase target group house hold income levels and medium level entrepreneurs. Therefore, production of high spice products such as chili powder, curry powder etc. may be the viable self employment micro-enterprise among the rural sector. The objective of the project is to train more than 100 people in specific area on spice processing thereby small / medium entrepreneurs, farmers and unemployed youth in Kurunegala distric were made awareness on selecting appropriate agro-processing machineries, packaging



technologies in order to begin agro processing industries to increase their income levels through value addition. We could gather 125 people from almost every pradeshiya area such as Wariyapola, Ambanpola, Nikawaratiyaya, act. They could obtain knowledge on spice processing based on theoretical and practical.

3.3.3. Initiation of fruit-based products manufacturing micro enterprises at rural level

Fruit and vegetables play a vital role in human nutrition, especially as sources of vitamins, minerals, dietary fiber and antioxidants and increased consumption of variety of fruits on a daily basis is highly recommended because of associated health benefits. Although, agro climate in Sri Lanka is suitable for a wide range of tropical subtropical and some temperate fruits which have a high market potential, 30-40% of the harvest is lost at the postharvest stage due to improper supply chain and value chain activities. This amount could have been used in reducing poverty, hunger, and malnutrition and also it can be used to increase export earnings of the country. On the other hand, low income level due to lack of knowledge on income generating methods in rural farming sector is another key issue which should be addressed immediately.

In this context, this project aimed to develop appropriate systems for improved handling and processing of fruit produced in rural areas. Hence, the objective of this project was initiation of income generating agro-based micro enterprises at rural level while improving handling and processing practices of fruits which ultimately leads to minimization of postharvest losses of fruits.

At the first, farming communities were selected in seven districts, namely, Anuradhapura, Polonnaruwa, Ampara, Kurunegala, Kandy, Jaffna, Manna and Nuwara-Eliya. 13 Training programmes were conducted and 465 trainees were participated to these programmes.



3.5 Introduction of improved of post harvest techniques

The following improved post harvest techniques were introduced to farmers island wide through field extension programmes of the IPHT during the year 2012:

Improved post harvest technology	No.
a. IPHT rice parboiling vessel	234
b Mobile vegetable stalls	10
c. Plastic crates	1144 crates
d. IPHT Hand operated maize sheller	01
e.Pulse dehuller machines	07 no

3.6 Popularization of noodles prepared from 100% red rice

In order to popularize value added rice based products in the local market, rice noodles prepared from 100% red rice, were produced and marketed utilizing the existing facilities of the Rice-based Product Development and Demonstration Plant of the IPHT, established under the Chinese Government Grant Aid Programme.

During year 2012,IPHT has purchased 1150kg of white paddy from Mr.H.A.Wijethilke, Mr.P.S.P.Rajapakshe, Mr. B.D.Rupasena. and 9980kg of long red paddy from Paddy Marketing board for producing red and white rice noodle.

Item sold	Amount
Finger millet noodles produced	1306.2 kg
Finger millet noodles packets	302.6kg
White rice noodles produced	735.5 kg
White rice noodles packets	61kg
Red rice noodles packets	2847.6 kg
Parboiled Nadu rice	718.8 kg
Parboiled Samba rice	991 kg
Parboiled red rice	656kg

4.0 TRAINING

The demand for training, especially from private and cooperative sector organizations, was continuously increasing during the period under review. The training courses conducted by the Institute were production/extension oriented, aimed towards technology transfer to personnel engaged in post harvest operations

A large number of farmers and farmwomen were also trained in collaboration with the Department of Agriculture, Provincial Councils, NGOO and Mahaweli Economic Agency.

4.1 Details of the training programmes conducted:

72 were short term residential training courses of duration 1 to 6 days and study visits and 150 were non-residential courses, field training/demonstrations conducted for farmers, traders and small and medium scale processors at Field Centres located in Ampara, Nuwara Eliya, Kandy, Ambanpola, Anuradhapura Galle, Matara, Pollonnaruwa, Jaffna and Lunama.

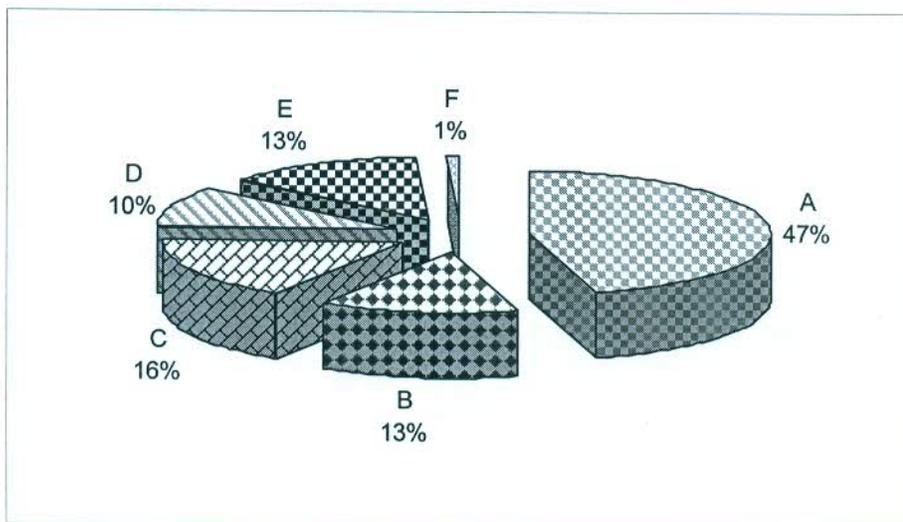
a) Inplant training

Four undergraduate students from Engineering Faculty university of Peradeniya were trained on machinery and post harvest technology during December to February 2012. In addition, one student from Advanced Technological Institute, Naiwala, one student Vocational Training Authority, Anuradhapura, one student from Vocational Training Authority, Thmuththegama and one student from National Apprentice Industrial Training Authority, Thmuththegama.

b) Residential training:

During the year 2012, 72 short-term residential training courses were conducted and 2757 persons were trained in various disciplines of Post Harvest Technology and the details are given in Fig 2.

FIG1:TRAINEE CATEGORIES_YEAR 2012
TOTAL NUMBER TRAINED_8572
Total no of training programmes -222



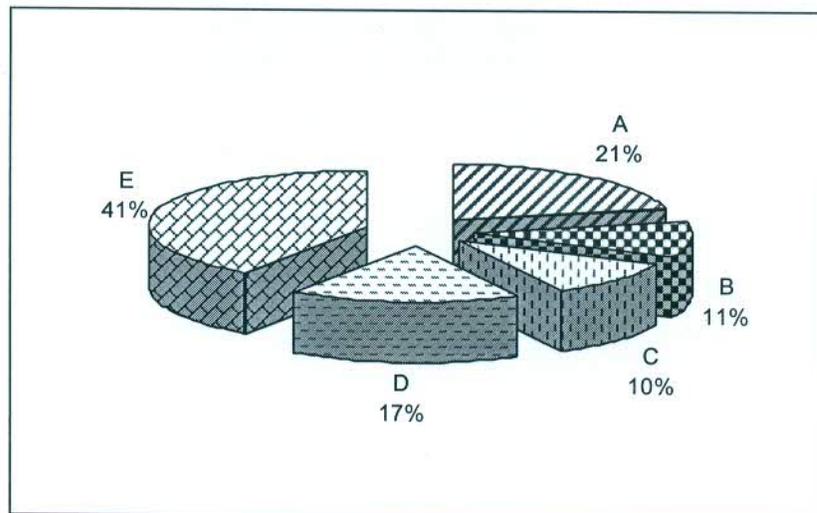
Trainee categories:

- A. Farmers, farmwomen and members of farmer organizations - 3913(47%)
- B. Project beneficiaries and small/medium scale entrepreneurs - 1131(13%)
- C. Fruit and vegetable growers,Collectors,Traders, Rice and other grain processors-1402 (16%)
- D. Extension Officers from public, co-operative, private sectors and NGOO-885(10%)
- E. Students from Secondary schools, Universities, Schools of Agriculture and Technical Colleges -1153(13%)
- F. Bakery owners.-82(1%)

FIG2: RESIDENTIAL TRAINEES OF IPHT

Total number of trainees- 2757

Total no of training programmes -72



- A. Farmers, farmwomen and members of farmer organizations- 586(21%)
- B. Project beneficiaries and small/medium scale entrepreneurs-298(11%)
- C. Rice and other grain processors-281(10%)
- D. Extension Officers from public, co-operative, private sectors and NGO-474(17%)
- E. Students from Secondary schools, Universities, Schools of Agriculture and Technical Colleges-1118(41%)

c) Non residential training, Field level training / demonstrations

During the year 2012, the 150 non- residential training, field training programmes and demonstrations were conducted and 5815 individuals were trained. During the period under review, the institute continued its technology transfer activities through its Field Centres effectively especially in major crop producing areas. The field centres are located in Ampara, Nuwara Eliya, Abanpola (Kurunegala district), Kandy, Lunama (Hambantota District), Anuradhapra, Polonnaruwa Galle, Matara and Jaffna..The Lunama field centre was declared open on 02 May 2012 and Matara field centre was declared open on 09 th July 2012

4.3 Participation in Exhibitions

The IPHT participated in three exhibitions held island wide during the year 2012 as follows:

- a) 'Dayata Kirula Exhibition at Oyamaduwu in Anuradhapura district from 4-12 th February 2012- Cooked Rice noodles and rice ice cream were introduced as special programme.
- b) "Hambantota Nawodaya" at Welithanna Maha Vidyalaya, Hambantota. in July.
- c) "Divi Naguma" exhibition at Gatabe, Kandy "Mahanama Maha Vidyalaya" from 17 to 18 th March 2012

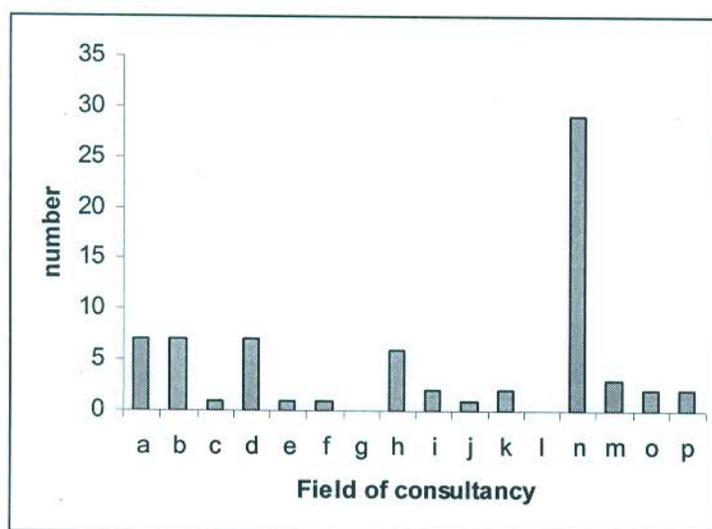
5. CONSULTANCY AND ADVISORY SERVICES

5.1 Number of consultancies carried by IPHT staff

During the year 2012 institute invented new post harvest technologies and those technologies could be send to the entrepreneurs to enhance their technologies accordingly, as a result seventy one (71) new investors, private rice millers, mill owners, co-op societies, private traders, NGO's and individuals engaged in different post harvest activities in the country have sought the assistance of the IPHT to establish new mills, to modernize already existing mills, to establish food processing plants, to establish drying units, to construct new storage structures and to solve technological problems pertaining to other post harvest activities.

The details of consultancies completed by the IPHT during the year 2012 are given in Fig.3.

Figure 3. The details of consultancies completed during the year 2012



Field of consultancy:

a. Establishment of rice processing plants	07
b. Rehabilitation and modernization of existing processing plants	07
c. Rice and other flour processing	01
d. Information on rice/grain/spice processing technology	07
e. Grain storage and construction of ware houses	01
f. Quality control and grain procurement	01
g. Drying of chili, fruits and vegetable, spices, grains/herbals	00
h. RPRDC/ IPHT post harvest machinery and equipment	06
i. Rural level rice processing	06
j. Production of rice /grain based products and weaning / infant foods.	01
k. Machinery and equipment evaluation	02

l. Processing of fruits and vegetables	00
m. Information on crop post harvest technology	29
n. Information on noodle production technology	03
o. Food packaging	02
p. information on food technology	02

Details of importnt consultancies

- a) Improvement of technical knowledge of members of Walawa Zone Rice millers association.
- b) Improvement of technical knowledge of members of Ambilipitiya Sri Lanka Mahaweli Authority. in January
- c) Improvement of technical knowledge of members of Hambantota District commerse society.
- d) Improvement of technical knowledge of members of Ambilipitiya Sri Lanka Mahaweli Authority. in February
- e) After modernization of the rice mill by courty see of ILO (Capacity :2 ton/hr) belong to Nadunkrnee,Vavniya was ceremonially handed over to them on 24 th February 2012 with the participation of Scretary of Australian embassy.
- f) Modernized the milll "Samanala" (Capacity :2 ton/hr) for production of high quality rice, in Nochchiyagama.
- g) Technology for rural level high quality rice production was provided to Mrs. Thamara Lalani.
- h) Leaflets and knowledge on packaging was given to J.S.Wajira Sampath from Meerigama.
- i) Advises were provided on modernization to ILO
- j) Advices and lefflets were provided on rice ice cream to Mr.R.C.Direx.from Ranawrugama, Ibbgamuwa.
- k) Advices and leaflets were provided on post harvest technology to Mr.D.J.Namal Tharangafrom Beliattha,Mathara.
- l) Information and leaflets were provided on IPHT to Mr.Senaka Keppetipola,Mathale.
- m) Advises on modernization the rice milll ws provided to Pemaduwa Multi purpose socitey.
- n) Advises given on rice based products,to Mr.D.E.G.Kaunarathna
- o) Advise on rice parboiling and dryingto Mr.Sumith Bandra from Gomarankadawala.
- p) To improve rice mill at vavniya advices was provided to Mr,S,Naguleshwaran, Project Manager in April..
- q) Technicl report was provided to Ms,Polonnaruwa multi purpose society.in May.
- r) Technicl report was provided to Ms,Madirigiriya multi purpose society in May.
- s) Specifications on rice flour packaging machines nd cleaning machines,to National food promotion board in june month.
- t) Advices provided to buldup mechanically and improved natural ventilated storage system to Food commissioner Ms Nimalka dues.
- u) Advices provided to improve storage structures to Mr.Donglig,Director,ICO.
- v) Specifications were provided on extraction machines to Secretary,provincial Agriculture office Anuradhapura.
- w) Consutncies were procvided for longer storage life of grains to stores improvement project of Department of foods.
- x) Advices on quality gurunteed chilli powder to Mr,M,Wimalasiri from Anuradhapura.

- y) Advices to put up Business on spices were provided to Mr.Jakody from Ganemulla, Mr.K.I.Samarsingha from Anuradhapura, K,I, Wasanth, for Mawathagma.
- z) Two technical reports were provided to improve large scale rice mills in North East provinces.
- aa) Advices were provided for longer storage of rice to the project of improvement and development of stores of Food Department.
- bb) Advice was provided to produce chilli powder according to the standards to Dinithi Products, 338, Gammada Road, Thimbirigaskatuwa, Negambo.
- cc) Advices were provided to start spice based enterprise to Mrs. Ariya Subadra, Dilruu, Nachchaduwa Road, Ghanikulama, Anuradhapura and Mr.K.I.Amarasinghe, 401, Anuladevi Mawatha, Anuradhapura.
- dd) 18 numbers of reports to improve small scale rice mills of North and East provinces were issued.

5.2 Analysis of grain samples

Name	Type of sample	No. of samples	Analysis done
S..A.Silva & sons Colombo-08	Coconut sambol (Food Pack)	01	Gases in container
PMB store Nochchiyagama	Paddy	01	Quality analysis
Mr.Rupasena Anuradhapura	paddy	01	Quality analysis
Cagils ltd. Thambutegama	Cassava	01	Drying and flour quality
SLArmy Anuradhapura	Rice	01	Quality analysis
Rice millers Polonnaruw	rice	12	Quality analysis

6. PUBLICITY/ PUBLICATIONS

6.1 Publicity programmes on Post harvest technology.

- a) Dr.D.M.C.C.Gunathilake, acting Senior Research officer and Mr.C.B.Wasala, Research officer participated in live radio programme on "Storage and storage of B Onion" from 18.30 to 19.30 on 11.10.2012.
- b) Dr.D.M.C.C.Gunathilake, acting Senior Research officer, Mr.Chaminda Gunawardene, Research officer and Mr.U.G.Chandrajith, Research officer participated in a live radio programme on "Processing and harvesting in Yala season 2012" from 9.00 a.m. to 10.00 a.m. on 06.08.2012.
- c) Mr.Senanayake, Field officer, Galle, participated in a live radio programme on "Strategies for nutritional paddy harvesting" from 15.00 pm to 3.30 p.m. on 15.03.2012.
- d) Dr.D.M.C.C.Gunathilake, acting Senior Research officer attended in a live programme on "Processing and harvesting in Maha season 2011/12" from 9.00 a.m. to 10.00 a.m. on 27.02.2012.

6.2 Paper articles/news items

During the period under review, publicity to IPHT activities were given through mass media and the details are as follows:

1. Article on “Diwayina” paper on 09 th October 2012 about “Does B-onion cultivation in Sri Lanka give economic benefits?”. by Dr.D.M.C.C. Gunathilake.
2. 03 nos. of articles on “Finger millet noodles” were published on”Rivira”,’Lankadeepa” and “Daily News”papers by Eng.B.D.M.P.Bandara.

6.3 Circulation of IPHT Publications

During the period under review 24660 copies of hand-outs, leaflets and other information bulletin of the IPHT pertaining to Post Harvest Technology improvement published both in Sinhala and English languages were issued to beneficiaries of the institute. 145 Copies of the IPHT news bulletin “Pasu Aswanu Puwath” were issued to various government organizations, NGOs and required persons.

7. SPECIAL EVENTS

7.1. A Ceromony was held on 10th January 2012, to distribute the benifits for enterpruners of development projects of model villages constructed by the IPHT. Honorable Mr.Mahinda Yapa Abeywardene Agriculture Minister, was the chief guest of this event. The beneficiaries were received ”gunny bissa’, rice flour milling machineries,spice production machineries, Cheques for improvement of storage facilities etc. from the minister.



7.2. RESEARCH SYMPOSIUM

The first research symposium on “Postharvest technology for food security” organized by IPHT was held on 8th March 2012 at the Foundation institute, Colombo with the participation of Hon. Mahinda Yapa Abeywardane, Minister of Agriculture, Hon. S.M. Chandrasena, Minister of Agrarian services and wildlife and Hon. Reginald Cooray, Minister of Minor Export Crop Promotion. The Chairman IPHT, Mr.J.P.Jayawarane, The vice chairman Mr.Gunarathne Gallage and the Director IPHT Mrs.B.M.K.S.Thilakarathne. The contents were helpful not only to researchers but also, to industrial personnel working in these areas.

This symposium was held to introduce the research findings of year 2009 & 2010 of IPHT to stake holders who involving post harvest sector in Sri Lanka. Thirteen researches were presented at the session on post harvest technology of paddy and other grains, spices and fruits and vegetable. University lecturers, country coordinator of the World Food Programme, Government Officials, researchers, Food processors and Private sector participants were also present to the event.



8.0 IPHT FACILITIES USED BY OTHER INSTITUTES

- 1) IFAD Institute
- 2) Education Department of western province
- 3) Institute of Local Governance , North Central Province
- 4) Sri Lanka Institute of Local Governance
- 5) Red Cross Society
- 6) Central Environmental Authority
- 7) Department of Labour
- 8) Ceylon Electricity Board
- 9) National Youth Council
- 10) Chalk and Chouser institute
- 11) Nationl Water Supply and Drainage Board
- 12) Divisional Scretariat
- 13) Transport Authority

- 14) Ministry of youth affairs Sri Lanka Transport Board
- 15) Merchant Bank
- 16) MBSL Finance corporation, Anuradhapura
- 17) Regional Development Bank, Anuradhapura
- 18) Nippon Lanka international institute
- 19) Road Passenger Transport Service Authority
- 20) National child Care Authority, District Secretariat, Anuradhapura
- 21) State Timber Corporation
- 22) Sri Lanka Social Security Board, Anuradhapura
- 23) Ayurvedic Community Health Promotion Services, Ministry of Indigenious Medicine
- 24) Mackwoods (pvt) Ltd.
- 25) Labour Department
- 26) Industrial Solutions(pvt)Ltd.

9. IMPROVEMENT OF FACILITIES FOR RESEARCH AND TRAINING/ EXTENSION

- 1) Renovation of TV room of the hostel.
- 2) Repair of common toilets of the hostel
- 3) New construction of security room.
- 4) Repair of main gate
- 5) Floor tiling of two special rooms of the hostel
- 6) Floor tiling of eleven normal rooms of the hostel
- 7) Repair of flood damaged Buildings
- 8) Renovation of old auditorium of the IPHT.

10. PROFESSIONAL DEVELOPMENT OF IPHT STAFF

The following officer of the Research and Training staff of the IPHT underwent training in the fields pertaining to Post Harvest Technology during the year 2012:

a) *Post-graduate Degree Programme*

- | | |
|---|---|
| 1) Mrs. W.A H. Champa
Research Officer | Ph.D. in Horticulture
Panjab Agricultural University
Ludhiyana Panjab 11/01/2011 to 11/01/ 2014 |
| 2) Mr.P.G.L.Wasantha
Extension Officer | Master of science of Post harvest Technology-
Thailand
April 2011 to March 2013 |
| Mrs.R.M.R.K. Rathnayake
Research Officer | Ph.D. in Plant sciences
Post Graduate Institute of science(PGIS)
University of Peradeniya
01/05/2012 to 01/05/2015 |
| 4) Mrs. K.G.L.R. Jayathunge
Research Officer | Ph.D. in food Science & Technology
Queen's University, Belfast
United Kingdom. |

b) Short term training programmes

- 1) Mrs.D.M.S.P.Bandara
-(Mechanical Engineer) Food security: Post Harvest and quality assurance of selected Agro industrial products-Thailand 02/05/2012 to 01/06/2012
- 2) Dr.D.M.C.C.Gunathilake
(Acting Senior Research Officer) Training course on value addition to Agricultural product for greater access to New market.Philippines.,09/07/2012 to 14/07/2012.
- 3) Mr.C.R.Gunawardane
(Research Officer) Characterization of fresh processed fruit quality.,Vietnam,23/07/2012 to 25/07/2012

11. STAFF POSITION AS AT 31st DECEMBER 2012

Post	Name
Acting Director	Dr. (Mrs). B.M.K.S. Thilakaratne BSc.Sp.(Agric. Food Sci.& Tech.) Sri Lanka, MSc.(Food Sci.& Tech.), Sri Lanka PhD.(Postharvest Tech. Horticulture), India Dip.in rice sciences(China) Dip.in Post harvest biology of fruit and veg.(Israel)
Actg. Deputy Director (R&D)	Mr. D. P. C. Swarnasiri BSc. (Agric), Sri Lanka Dip. in Agric.(China) MSc. (Agric), Sri Lanka PGDM, Sri Lanka
Senior Mechanical Engineer	Mrs. D. P. Senanayake B.Sc. Mech. Eng. (Sri Lanka) M. Phil.Chem. Eng (Sri Lanka)
Actg. Deputy Director (Admn & Finance)& Accountant	Mr. R.K.A.P. Ramanayake B.Sc. Management (Sri Lanka), Licentiate Certificate ICA, MIPFDA
Actg. Senior Mechanical Engineer	Mr. H.M.A.P. Ratnayake BSc. (Eng.), Sri Lanka M.Tech (Agric. Process Eng.), india
Actg. Senior Research Officer	Dr. D.M.C.C.Gunathilake BSc.Sp.(Agric.Eng), Sri Lanka MSc. (Agric. Eng.), Sri Lanka PhD. (Process & Food Eng.), India NDT (Agric), Sri Lanka, ASAE (USA)
Research Officer	Mrs. W.A H. Champa BSc. Sp. (Horticulture), Sri Lanka M.Phil (Crop Sci.), Sri Lanka
Research Officer	Mr. W.M.C.B. Wasala B.Sc. Sp. Agric. (Sri Lanka)
Mechanical Engineer	Mr. B.D.M.P. Bandara Dissanayake BSc. (Eng.) Sri Lanka, M.Eng.(Processing & Food Eng.) India, AMIE(Sri Lanka)

Research Officer	Mrs. K.G.L.R. Jayathunge B.Sc. Sp. Agric. (Sri Lanka)
Research Officer	M.Phil. Food Sci.& Tech. (Sri Lanka) Mrs. R.M.R.N.K. Rathnayake BSc.Sp. (Botany), Sri Lanka MSc. (Postharvest Tech. of Fruit & Vegetables), Sri Lanka
Research Officer	Mr. C.R. Gunawardane B.Sc. Special Chemistry (Sri Lanka)
Research Officer	Dr. (Mrs.) R.M.N.A. Wijewardane BSc. (Agric.) Sri Lanka, MSc. (Agric.) Sri Lanka, PhD. (Horticulture postharvest Technology), India
Research Officer	Mrs. H.S. Jayawardane BSc. (Applied Sci.), Sri Lanka. MSc. (Food Sci. & Tech.)
Mechanical Engineer	Mr. T.M.R. Dissanayake BSc. (Eng.), Sri Lanka MEng.(India), AMIE (Sri Lanka)
Extension Officer	Mr. P.G. Lalith Wasantha B.Sc. Sp.Agric. (Sri Lanka)
Extension Officer	Mrs. C.A.K. Dissanayake B.Sc.Sp. Agric. (Sri Lanka) PGDipl. Agric.(Sri Lanka)
Mechanical Engineer	Mrs. D.M.Srima Priyangika Bandara B.Sc. Chem. Eng.(Sri Lanka), MEng Manf. Syst. Eng (Sri Lanka)
Extension Officer	Mr. M.M. Herath B.Sc Sp. Agric. (Sri Lanka), Dip. in Counselling
Research officer	Mr.U.G.Chandrajith B.Sc.(Sp.)Botany MSc.Food Sc.& Tech.
Administrative Officer	Mr Janaka Subasinghe
Laboratory Technician	Mr. P.E.M.R. Palipane
Personal assistant to the Chairman	Mrs.H.D.K.D.Wickramasinghe

Supporting staff:

Technical Officer	01
Draughtsman	01
Building Inspector	01
Management Assistant (Steno/ Typist)	01
Management Assistant (Typist (Sinhala / English)	03
Field Officer	03
Laboratory Assistant	03
Management Assistant	08
Hostel Keeper	01
Welder	01
Technician	01
Electrician	01
Mill Operator	02
Boiler Operator	02
Driver	08
Workshop Operator	01
Maintenance Assistant	05
Cook	01
Security Guard	06
Ronio Operator	01
Canteen Labourer	01
Seva Sahayaka	01
Sanitary Labourer	01

Name	position	Research/development project	Reference page no of the Annual Report
Dr. (Mrs). B.M.K.S. Thilakaratne	Director	Student projects 1. Development of Murunga(<i>Moringa cleifera</i>)leaves based products 2 Study on development and storage of dehydrated murunga leaves fortified bread spread 3 Evaluation of physical and chemical Properties of three traditional rice varieties 4 Development of murunga based nutrimix 5 Evaluation of soaking time of "Madathavalu"rice Murunga and murunga based products 6 Development of low sugar jam using Dragon fruit	17

		<p>7 Evaluation of Different pretreatments on prevention of browning of osmotically dehydrated "Ambul" banana</p> <p>8 Studies on selecting suitable variety of egg plant for minimal processing.</p>	
Mr. D. P. C. Swarnasiri	Additional Director	1. Quality evaluation of locally produce rice available in open market	15
Mrs. D. P. Senanayake	Senior Mechanical Enginner	1. Development and tesing of pedal cum motor operated paddy cleaner	11
Mr. H.M.A.P. Ratnayake	Actg. Senior Mechanical Enginner	<p>1. Development of an energy efficient particle grader for rice flour industry Development projects.</p> <p>2. Improvement of medium scale rice mills to improve quality of rice.</p> <p>3.</p>	14
Dr. D.M.C.C.Gunathilake	Actg. Senior Research officer	<p>1. Evaluation of handling practices and effect of hermatic conditions of cocoons for storage of grains Student project</p> <p>2 Evaluation of physiological and biological changes of the fresh fruits and vegetables in the storage conditions of prototype mobile stall</p> <p>Development projects</p> <p>1. Introduction of a mobile fruits and vegetables stall for retail sell</p>	<p>20</p> <p>20</p> <p>21</p>
Mrs. W.A H. Champa	Research officer	on leave for Ph.D.Studies.	
Mr. W.M.C.B. Wasala	Research officer	1. Use of plastic crates in super market supply chain: a case study	18
Mr. B.D.M.P. Bandara Dissanayake	Mechanical Enginner	<p>1. Development of small scle paddy dryer Development Project</p> <p>2. Improvement of rice flour milling industry</p>	<p>10</p> <p>25</p>

Mrs. K.G.L.R. Jayathunge	Research officer	1. Characterization of antioxidant properties of selected medicinal plant available in Sri Lanka and development of rice based herbal food products.	16
		Development Project 2. Initiation of rice based product factories. 3. Initiation of Rice and Rice Based Products Manufacturing Micro-Enterprises 4. Production of rice based instant herbal drink Student project 5. Production of Crackers by "Karapincha" and rice flour	24
Mrs. R.M.R.N.K. Rathnayake	Research officer	1. Study of the use GRAS compounds to control post harvest diseases in tomato	20
		2. Study of soft rot in carrots and possible control measures	20
		3. Effect of temperature, pH and GRAS chemicals on soft rot in carrot caused by <i>Erwinia carotovora</i>	20
		4	
Mr. C.R. Gunawardane	Research officer	Development project 1. Initiation of fruit based manufacturing micro enterprises at rural level	26
Dr. (Mrs.) R.M.N.A. Wijewardane	Research officer	1. Formulation of edible fruit wax for commercial use	18
		2. Evaluation on the stability for bulk packages (developed by IPHT) for leek transportation	20
		Development projects 1. Reduction of postharvest losses in fruits and vegetables by adopting appropriate pack house technologies at farm level	22
Mrs. H.S. Jayawardane	Research officer	1. Development of novel rice based snacks Student project Development Project 3. Introduction of rice cream machine in district level	20 23

Mr. T.M.R. Dissanayake	Mechanical Enginner	1. Suitability testing and evaluation of rice de stoner for pepper de stoning 2. Process improvement of paddy paboiling in rice milling industry.	
Mr. P.G. Lalith Wasantha	Extension Officer		
Mrs. C.A.K. Dissanayake	Extension Officer	1. Assessment of rice processing vilage programme Development project 2. Establishment of model villages	9 22
Mrs. D.M.Srima Priyangika Bandara	Mechanical Enginner	1. On the role of the pre geletanization in the quality improvment of rice flour 2. Evaluation of screw type oil extractor for extraction of sesame oil.. Development project 2 Initiation of spice processing micro enterprises at rural level	12 20 26
Mr. M.M. Herath	Extension Officer		
Mr.U.G.Chandrajith	Research officer	1. Development of ready to use rice noodles 2. Process Development of Goraka (<i>Garcinia gummi-gutta</i>) Powder Development projects 3. Initiation of Rice and Rice Based Products Manufacturing Micro- Enterprises	20 17 20

**INSTITUTE OF POST
HARVEST TECHNOLOGY**

FINAL ACCOUNTS

2012

INSTITUTE OF POST HARVEST TECHNOLOGY

BALANCE SHEET AS AT 31ST DECEMBER 2012

	Note	Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
ASSETS			
CURRENT ASSETS	2	17,597,743.12	41,213,523.19
NON CURRENT ASSETS			
INVESTMENT	3	54,748,000.00	62,748,000.00
OTHER NON CURRENT ASSETS	4	7,756,717.10	7,475,341.61
FIXED ASSETS	5	89,795,633.23	93,582,198.05
PATENT	6	7,840.00	
TOTAL ASSETS		169,905,933.45	205,019,062.85
LIABILITIES			
CURRENT LIABILITIES	7	38,308,199.82	59,889,731.24
NON CURRENT LIABILITIES		-	-
TOTAL LIABILITIES		38,308,199.82	59,889,731.24
NET ASSETS		<u>131,597,733.63</u>	<u>145,129,331.61</u>
NET ASSETS / EQUITY			
Equity	8	41,110,006.68	50,103,350.68
Accumulative Revenue	9	90,487,726.95	95,025,980.93
TOTAL NET ASSETS / EQUITY		<u>131,597,733.63</u>	<u>145,129,331.61</u>

sgd:
Chairman

sgd:
Director

sgd:
Accountant

INSTITUTE OF POST HARVEST TECHNOLOGY

INCOME STATEMENT

FOR THE YEAR ENDED 31 ST DECEMBER 2012

		Year Ended 31 st December 2012 Rs	Year Ended 31 st December 2011 Rs
INCOME	Note		
Funds Received from General Treasury	10	46,601,500.00	41,572,683.00
Funds Received from Other Agencies	11	6,181,309.49	21,768,268.36
Other Operating Income	12	20,917,075.24	18,588,181.20
Rice Based FOOD Product Development Plant Noodles Profit & Loss Account	13	(128,293.36)	(527,103.93)
		<u>73,571,591.37</u>	<u>81,402,028.63</u>
Expenditure	14	78,465,429.33	86,492,264.75
Net Income from Operations		<u>(4,893,837.96)</u>	<u>(5,090,236.12)</u>
Net Income Before Taxation		<u>(4,893,837.96)</u>	<u>(5,090,236.12)</u>
Taxation		-	-
Net Income after Taxation & before Extraordinary Items		<u>(4,893,837.96)</u>	<u>(5,090,236.12)</u>
Extraordinary Items		-	<u>(2,390,644.60)</u>
NET INCOME /(LOSS)		<u><u>(4,893,837.96)</u></u>	<u><u>(7,480,880.72)</u></u>

sgd:
Chairman

sgd:
Director

sgd:
Accountant

STATEMENT OF CHANGES IN EQUITY
 INSTITUTE OF POST HARVEST TECHNOLOGY
 STATEMENT OF CHANGES IN EQUITY
 AS AT 31ST DECEMBER 2012

		Capital Rs.	Accumulative Revenue Rs.	Funds Received General Treasury Rs.	Total Rs.
Balance As at 1.1.2012	J	69,907,594.42	(36,405,955.83)	30,509,250.00	64,010,888.59 0.00
Profit & Loss Account			(4,893,837.96)		(4,893,837.96)
Building & Structure	12		(23,177.50)		(23,177.50)
Salaries & Wages-monthly paid staff	23		58,620.00		58,620.00
Salaries & Wages-monthly paid staff	26		44,958.69		44,958.69
Hostal Income	39		(30,000.00)		(30,000.00)
Running Expences Vehicle/Sundry Expences	46		(5,237.00)		(5,237.00)
Fixed Assets	56		752,160.00		752,160.00
With Holding Tax	76		(4,983.56)		(4,983.56)
With Holding Tax	79		(4,983.56)		(4,983.56)
With Holding Tax	84		(4,397.25)		(4,397.25)
With Holding Tax	89		(3,986.85)		(3,986.85)
With Holding Tax	95		(147.94)		(147.94)
With Holding Tax	102		(4,397.25)		(4,397.25)
With Holding Tax	109		(931.51)		(931.51)
With Holding Tax	116		(172.79)		(172.79)
Sleeda Advance	123		(400,000.00)		(400,000.00)
Patent	135		7,840.00		7,840.00
Depreciation			(25,579.50)		(25,579.50)
Depreciation Adjusted			(8,993,344.00)		(8,993,344.00)
Total		<u>69,907,594.42</u>	<u>(49,937,553.81)</u>	<u>30,509,250.00</u>	<u>59,479,290.61</u>

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INSTITUTE OF POST HARVEST TECHNOLOGY

CASH FLOW STATEMENT

FOR THE YEAR ENDED 31 ST DECEMBER 2012

		Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
	Note		
Cash Flow from Operating Activities			
Net Profit before taxation Extraordinary Items		(4,893,837.96)	(7,480,880.72)
Adjustment for :			
Depreciation : Current year			
Gratuity		3,083,812.75	1,272,454.50
Interest Income		(7,506,372,.21)	(6,445,044.33)
Interest Expenses		570,288.00	594,010.11
Bank Charges		32,307.20	84,072.13
Previous Year Adjustment - Profit & Loss Account		347,743.98	232,338.84
Operating profit before working capital charges		(8,366,058,.24)	(11,743,049.07)
Working capital Changes			
(Increase)/Decrease in non - current Assets	22	7,718,624.51	(235,237.77)
(Increase)/Decrease in current Assets	23	27,591,046.04	(12,045,456.19)
Increase /(Decrease) in non - current Liability			
Increase /(Decrease) in current Liability	24	(21,581,531.42)	17,120,293.99
Cash Generated from Operations		5,362,080.89	(6,903,449.04)
Non operating activities			
Previous Year Adjustment - Foreign Loan			
Bank Charges		(32,307.20)	(84,072.13)
Gratuity paid		(3,083,812.75)	(1,272,454.50)
Income Tax Paid			
Net Cash flow/(outflow) from Operating activities : (A)		2,245,960.94	(8,259,975.67)
Cash flow from Investing Activities			
Purchase of Fixed Assets		(4,454,619.18)	(19,027,517.64)
Previous Year Adjustment - Fixed Assets		(752,160.00)	(191,815.99)
Net Interest Received		6,936,084.21	5,851,039.22
Net Cash flow/(outflow) from Investing activities (B)		1,729,305.03	(13,368,294.41)
Financing activities			
Previous Year Adjustment - Capital			
Previous Year Adjustment - Government Grant			
Capital From General Treasury			14,700,000.00
Net Cash used in Financing activities (C)		0.00	14,700,000.00
Net Increase/(Decrease)in Cash and Cash Equivalents (A+B+C)		3,975,265.97	(6,928,270.48)
Cash & Cash Equivalents at the beginning of period	25	916,003.63	7,844,274.11
Cash & Cash Equivalents at the end of period	26	4,891,269.60	916,003.63

1. Summary of Significant Accounting Policies.

1.1 General Accounting Policies

1.1.1 The published results and the financial position of the Institute have been Prepared in accordance with the generally accepted accounting principles.

1.1.2 Taxation

Liable for Income Tax.

1.2 Assets and Basis of their Valuation

1.2.1 Accounts Receivable

Accounts receivable are stated as without providing for bad and doubtful debts, because most of the balances were brought forward from Paddy Marketing Board Accounts as at the transfer of assets and liabilities etc.

1.2.2. Stocks

Stocks have been valued at FIFO Method

Stocks have been valued at the lowest cost or realizable value.

1.2.3 Fixed Assets

The cost of fixed assets is the cost of acquisition or construction together with the incidental expenses therein. The fixed assets are recorded at cost, less accumulated depreciation which is provided for, on the basis specified below.

Depreciation of fixed assets is provided from the preceding year of purchase or construction of assets. Depreciation of written off or disposed off assets are provided in the current year fully. To depreciate assets straight line method is adopted.

1.2.4 Depreciation

Depreciation Rates have changed in the year 2004

	Useful life (Years)	Rate % per annum	New Rate % per annum
1. Building	40	2.5%	2.5%
2. Plant, machinery and equipment	13.3	7.5%	7.5%
3. Equipment	10	10%	10%
4. Furniture and Fittings	10	10%	10%
5. Electricity, & Fittings	10	10%	10%
6. Library Books	10	10%	10%
7. Vehicles	5	20%	20%
8. Telephone & Fittings	5		20%
9. Computers	4		25%
10. Agro – Farm	4		25%

In all cases the basis of depreciation is consistent with those of previous year. No depreciation provided for land.

According to the decision of the Board of Directors on 21.1.2005, (Vide Board paper No. 172)

Utilization of capacity of Buildings and plant and machinery for Research and Development purpose and commercial purposes were categorized. Based on that decision depreciation of plant and machinery and buildings have been calculated since 2005.

For the current years depreciation rate of 33% of the total capacity of buildings and 45% of plant and machinery are to be considered. However, based on the actual number of days utilized for commercial purposes depreciation was calculated and the balance capacity was absorbed to Research and Development purposes.

1.3. Liabilities

As per the Gratuity Act. No. 12 of 1983 , Gratuity fund is Rs 12,418,347.00 up to end of 31.12.2012

Note		Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
2 Current Assets			
Cash & Cash equivalents	2.1	9,189,856.85	26,049,501.40
Advances	2.2	716,137.80	1,324,273.49
Detours Control Account	2.3	1,367,329.98	8,552,492.08
Accrued Income	2.4	3,317,367.47	2,765,786.92
Stocks	2.5	2,984,342.27	2,498,760.55
Deposits	2.6	22,708.75	22,708.75
		17,597,743.12	41,213,523.19
2.1 Cash & Cash equivalents			
Bank of Ceylon - Torinton		4,703,885.18	789,487.44
People's Bank -Anuradhapura		182,384.42	121,516.19
Patty Cash		5,000.00	5,000.00
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura		2,365,849.99	2,250,368.82
National Saving Bank 1- 0001- 07-32087-Kollupitiya		1,932,737.26	22,883,128.95
		9,189,856.85	26,049,501.40
2.2 Advances			
Festival		147,094.03	142,094.03
Traveling		242,497.01	290,404.11
Half monthly		150.00	150.00
Interring Advance -General R&D		255,678.16	389,094.75
Interring Advance -General - Head Office		70,718.60	102,530.60
Suspense Account General - Head Office		0.00	400,000.00
		716,137.80	1,324,273.49
2.3 Debtors Control Account			
Rice		100,183.75	100,183.75
By-product		6,069.50	6,069.50
Others		1,198,734.99	1,168,013.80
Sale -stole		1,219.00	1,219.00
Agriculture Ministry		61,122.74	7,202,794.93
World food program		0.00	67,565.10
Govibara fund		0.00	6,646.00
		1,367,329.98	8,552,492.08
2.4 Accrued Income			
General		3,237,072.10	2,685,491.55
Regional Economic Advancement Project 1 -Matale		49,354.70	49,354.70
Sri Lanka Council forAgricultural Research Policy		30,940.67	30,940.67
		3,317,367.47	2,765,786.92
2.5 Stocks			
Noodles		349,486.74	837,829.35
Rice Mill -Rice		45,892.10	4,932.00
Broken & other		2,758.00	3,418.00
Stores -Paddy		324,892.52	29,615.12
Research projects		155,200.00	
Machinery - Raw material		13,658.27	118,369.92
Machinery		1,062,075.00	377,375.00
Diesel - Factory		111,434.48	194,786.16
- Generator		34,941.00	34,941.00
Research projects			13,489.84
Packing material - Noodles		884,004.16	884,004.16
Packing material - Rice			
		2,984,342.27	2,498,760.55
2.6 Deposits			
Services		675.00	675.00
Other		22,033.75	22,033.75
		22,708.75	22,708.75

	Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
3 Investment		
Deposits		
National Saving Bank 2- 0001- 17-99606 -Kollupitiya	10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99568 -Kollupitiya	10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99541 -Kollupitiya	10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99592 -Kollupitiya	0.00	8,000,000.00
National Saving Bank 2- 0001- 17-99584 -Kollupitiya	2,000,000.00	2,000,000.00
National Saving Bank 2- 0001- 17-99550 -Kollupitiya	10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99576 -Kollupitiya	2,748,000.00	2,748,000.00
National Saving Bank 2- 0001- 15-77794 -Kollupitiya	10,000,000.00	10,000,000.00
	<u>54,748,000.00</u>	<u>62,748,000.00</u>
4 Other Non - Current Assets		
Workers Loan	5,340,969.09	5,708,662.60
Workers Loan -Special	463,500.00	495,000.00
Flood Loan	245,620.95	1,271,679.01
Work in Progress - Office Building	1,706,627.06	
	<u>7,756,717.10</u>	<u>7,475,341.61</u>

Note

05 PROPERTY, PLANT & EQUIPMENT

Descriptions	Building		Plant, Machinery & Equipment		Equipment	Furniture & Fittings		Electricity & Fittings	Library Books	Computers	Telephone & Fittings	Vehicles	Agro - Farm	Total
	Laboratory Workshop Mill	Rice Based Food Plants	Office, Laboratory Workshop Mill	Rice Based Food Plants		Office, Laboratory Workshop Mill	Office, Laboratory Workshop Mill							
COST														
Balance as at 1.1.2012	61,082,725.17	40,636,087.00	40,972,172.47	29,110,000.00	4,562,113.77	10,024,874.07	1,338,680.37	1,472,728.55	5,689,901.06	365,504.31	28,505,413.82	1,253,934.22	225,014,134.81	
Adjustment	661,820.00				50,500.00	30,000.00	9,840.00	0.00	0.00	0.00	0.00	0.00	752,160.00	
Additions	3,545,711.08	0.00	0.00	0.00	412,360.00	209,560.00	0.00	8,350.00	240,800.00	37,838.10	0.00	0.00	4,454,619.18	
Disposal														
Balance as at 31.12.2012	65,290,256.25	40,636,087.00	40,972,172.47	29,110,000.00	5,024,973.77	10,264,434.07	1,348,520.37	1,481,078.55	5,930,701.06	403,342.41	28,505,413.82	1,253,934.22	230,220,913.99	
DEPRECIATION														
Balance as at 1.1.2012	12,745,621.88	21,333,945.67	31,950,436.07	29,109,999.00	3,374,574.57	7,215,830.32	1,130,765.01	1,124,916.19	5,311,171.31	291,110.70	16,589,631.82	1,253,934.22	131,431,936.76	
Adjustment	16,545.50	0.00	0.00	0.00	5,050.00	3,000.00	984.00	0.00	0.00	0.00	0.00	0.00	25,579.50	
Charges for the Year	1,632,256.40	1,015,902.18	2,134,814.48	0.00	272,374.04	550,082.34	62,605.30	60,801.00	212,602.00	37,561.77	2,988,765.00	0.00	8,967,764.50	
Depreciation on Disposals														
Balance as at 31.12.2012	14,394,423.78	22,349,847.85	34,085,250.55	29,109,999.00	3,651,998.61	7,766,912.66	1,194,354.31	1,185,717.19	5,523,773.31	328,672.47	19,578,396.82	1,253,934.22	140,425,280.76	
WRITTEN DOWN VALUE														
Balance as at 31.12.2012	50,895,832.47	18,286,239.16	6,886,921.92	1.00	1,372,975.16	2,495,521.41	154,166.06	295,361.36	406,927.75	74,669.94	8,927,017.00	0.00	89,795,633.23	
Balance as at 1.1.2012	48,337,103.29	19,302,141.33	9,021,736.40	1.00	1,187,539.20	2,809,043.75	207,915.36	347,812.36	378,729.75	74,393.61	111,915,782.00	0.00	93,582,198.05	

Note

Depreciation	Rates
Building	2.5%
Plant, Machinery & Equipment	7.5%
Equipment	10%
Furniture & Fittings	10%
Electricity & Fittings	10%
Telephone & Fittings	10%
Library Books	10%
Vehicles	20%
Telephone	20%
Computers	25%
Agro - Farm	25%

Note
05 - A

Descriptions	No	Balance as at 1.1.2012		Additions During the Year	Disposed		Adjustment to Opening Balance	Balance as at 31.12.2012		Aggregated Depreciation as at 1.1.2012	Adjustment to Opening Balance	Disposed		Depreciation for the Year	Aggregated Depreciation as at 31.12.2012		Balance as at 31.12.2012	
		Rs	Rs		Rs	Rs		Rs	Rs			Rs	Rs		Rs	Rs	Rs	Rs
Buildings																		
Office, Laboratory Workshop & Mill		5,249,014.85						5,249,014.85		4,592,887.98				131,225.37	4,724,113.35		524,901.50	656,126.87
Boundary wall		1,674,695.65						1,674,695.65		319,595.57				41,867.39	361,452.96		1,313,242.69	1,355,110.08
P.V.C Fence		3,032,578.28						3,032,578.28		227,443.38				75,814.46	303,257.84		2,729,320.44	2,805,134.90
Bachelor Quarters	1	959,227.75						959,227.75		287,768.29				23,980.69	311,748.98		647,478.77	671,459.46
Workshop Extension	1	1,933,992.81						1,933,992.81		375,173.46				48,349.82	423,523.28		1,510,469.53	1,558,819.35
Cycle Hut	1	116,054.52						116,054.52		23,210.89				2,901.35	26,112.24		89,942.28	92,843.63
Twin Quarters	8	10,734,760.80						10,734,760.80		1,456,409.88				288,369.02	1,724,778.90		9,009,981.90	9,278,350.92
Room-Partician	1	50,150.00						50,150.00		12,537.50				13,791.25	36,358.75		37,612.50	37,612.50
Twin Quarters Water Tanks	8	484,288.30						484,288.30		84,277.25				12,107.21	96,384.46		387,903.84	400,011.05
Water Tanks	8	298,526.00						298,526.00		36,841.04				7,463.15	44,304.19		254,221.81	261,684.96
Room-Partician -Extinction office	1	97,155.00						97,155.00		17,002.15				2,428.88	19,431.03		77,723.98	80,152.85
Vehicle Garage	1	345,205.60						345,205.60		60,410.98				8,630.14	69,041.12		276,164.48	284,794.62
Office, Laboratory & Hostial	34	465,618.41		2,505,201.55			661,820.00	37,632,639.96		5,019,607.27		16,545.50		940,816.00	5,976,988.77		31,655,671.18	29,446,011.14
Stage		402,260.00						402,260.00		60,339.00				10,056.50	70,395.50		331,864.50	341,921.00
Canlina		689,103.60						689,103.60		103,365.54				17,227.59	120,593.13		568,510.47	585,738.06
Road Development		550,093.60						550,093.60		68,761.70				13,752.34	82,514.04		467,579.56	481,331.90
Gate		378,251.18						378,251.18						9,456.28	387,707.46		388,794.90	388,794.90
Gurd room		636,128.35						636,128.35		15,953.21				15,953.21	622,175.14		622,175.14	622,175.14
Garage		24,130.00						24,130.00		603.25				603.25	23,526.75		23,526.75	23,526.75
Sub Total		61,082,725.17		3,545,711.08	0.00	661,820.00	61,082,725.17	65,290,256.23	12,745,621.88	12,745,621.88	16,545.50	0.00	1,632,256.40	14,394,433.78	60,895,832.46	48,337,103.29		
Buildings																		
Rice Based Food Products Plant		40,636,087.00						40,636,087.00		21,333,945.67				1,015,902.18	22,349,847.85		18,286,239.16	19,302,141.33
Sub Total		40,636,087.00		0.00	0.00	0.00	40,636,087.00	21,333,945.67	21,333,945.67	0.00	0.00	0.00	1,015,902.18	22,349,847.85	18,286,239.16	19,302,141.33		
Plant, machinery & Equipment																		
Office, Laboratory Workshop & Mill		12,507,979.26						12,507,979.26		12,507,979.26				12,507,979.26			0.00	0.00
Copy Printer	1	437,625.00						437,625.00		393,862.55				32,821.88	426,684.43		10,940.58	43,762.45
Paper Cutter	1	22,000.00						22,000.00		19,800.00				1,650.00	21,450.00		550.00	2,200.00
Typewriter (English)	2	82,756.00						82,756.00		61,044.24				6,206.70	67,250.94		15,505.06	21,711.76
Gas Welding Set	1	37,500.00						37,500.00		33,750.00				2,812.50	36,562.50		937.50	3,750.00
Spot Welding plant	1	200,000.00						200,000.00		165,000.00				15,000.00	180,000.00		20,000.00	35,000.00
Grass cutter	1	76,500.00						76,500.00		68,850.00				5,737.50	74,587.50		1,912.50	7,650.00
Laboratory waterde-ionizer	1	192,404.44						192,404.44		173,163.96				14,430.33	187,594.29		4,810.15	19,240.48
Auto clave	1	774,675.00						774,675.00		697,207.55				58,100.63	755,308.18		19,366.82	77,467.45
UV- lamp	1	70,279.11						70,279.11		63,251.16				5,270.93	68,522.09		1,757.02	7,027.95
Facsimile machine	2	122,093.75						122,093.75		85,251.55				9,157.03	94,408.58		27,685.17	36,842.20
Multimedia Projector	4	702,375.00						702,375.00		384,159.42				52,678.13	436,837.55		265,537.46	318,215.58
Photocopy machine	5	720,500.00						720,500.00		455,550.00				54,037.50	509,587.50		210,912.50	264,950.00
Emboss Seal	1	28,125.00						28,125.00		23,203.16				2,109.38	25,312.54		2,812.47	4,921.84
Refrigerator	1	49,504.00						49,504.00		40,840.80				3,712.80	44,553.60		4,950.40	8,663.20
Bread cutter	1	57,500.00						57,500.00		47,437.50				4,312.50	51,750.00		5,750.00	10,062.50
Vacuum Sealer	1	180,000.00						180,000.00		148,500.00				13,500.00	162,000.00		18,000.00	31,500.00
Colour soaring machine	1	5,736,788.83						5,736,788.83		4,732,850.68				430,259.16	5,163,109.84		573,678.99	1,003,938.15
Uprighter Freezer	2	75,000.00						75,000.00		61,875.00				5,625.00	67,500.00		7,500.00	13,125.00
Refrigerator	5	167,900.01						167,900.01		121,755.00				12,592.50	134,347.50		33,552.51	46,145.01
Freezer	2	79,000.00						79,000.00		65,175.00				5,925.00	71,100.00		7,900.00	13,825.00
Typewriter (Sinhala)	3	78,813.00						78,813.00		65,020.75				5,910.98	70,831.73		7,881.27	13,792.25
Myco soil Hot air oven	1	75,960.00						75,960.00		56,970.00				5,697.00	62,667.00		13,293.00	18,990.00
Universal oven	1	184,500.00						184,500.00		138,375.00				13,637.50	152,125.00		32,875.00	46,125.00
Laboratory Oven	2	342,000.00						342,000.00		256,500.00				25,650.00	282,150.00		59,850.00	85,500.00
Rotary Evaporator	3	559,776.00						559,776.00		419,832.00				41,983.20	461,815.20		97,960.80	139,844.00
P.H. meter - hand held	4	187,264.00						187,264.00		140,448.00				14,044.80	154,492.80		32,771.20	46,816.00
- Bench Top	3	181,518.00						181,518.00		136,138.50				13,613.85	149,752.35		31,765.65	45,379.50
Gass Analyser	1	4,250,400.00						4,250,400.00		2,550,240.00				318,780.00	2,869,020.00		1,381,380.00	1,700,160.00
Balance C/F		28,180,736.40		0.00	0.00	0.00	28,180,736.40	24,114,031.08	24,114,031.08	0.00	0.00	0.00	1,175,456.75	25,289,487.87	2,891,248.53	4,066,705.32		

Note
05 - A

No	Descriptions	Balance as at 1.1.2012 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2012 Rs	Aggregated Depreciation as at 1.1.2012 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2012 Rs	Balance as at 31.12.2012 Rs	Balance as at 31.12.2011 Rs
	Plant, machinery & Equipment												
	Balance B/F	28,180,736.40	0.00	0.00	0.00	28,180,736.40	24,114,031.08	0.00	0.00	1,175,456.79	25,289,487.87	2,891,248.53	4,086,705.32
6	Heating mantles - 500ml	183,816.00				183,816.00	137,866.20			14,493.60	151,648.15	32,167.85	45,954.05
6	Heating mantles - 1000ml	193,248.00				193,248.00	144,936.00			9,831.60	108,147.60	33,818.40	48,312.00
3	Heating mantles - 2000ml	131,088.00				131,088.00	98,316.00			11,745.00	129,195.00	22,940.40	37,772.00
6	Sorhelet Extraction set - 1000ml	156,600.00				156,600.00	117,450.00			7,931.25	129,195.00	27,405.00	39,150.00
3	Sorhelet Extraction set - 2000ml	105,750.00				105,750.00	79,312.50			14,752.00	94,064.50	18,506.25	26,437.50
7	Laboratory Balance	1,967,760.00				1,967,760.00	1,475,820.00			147,582.00	1,623,402.00	344,358.00	491,940.00
1	Colour meter	105,750.00				105,750.00	79,312.50			7,931.25	87,243.75	18,506.25	26,437.50
1	Bush cutter	41,970.00				41,970.00	31,477.50			3,147.75	34,625.25	7,344.75	10,492.50
1	Welding transformer	204,975.00				204,975.00	153,731.28			15,373.13	169,104.41	35,870.60	51,243.72
1	Rice Polishing machine	660,697.42				660,697.42	495,523.07			49,552.31	545,075.38	115,622.04	165,174.35
1	Computer pendriver	9,900.00				9,900.00	7,425.00			742.50	8,167.50	1,732.50	2,475.00
2	Pentrometer	62,100.00				62,100.00	46,575.00			4,657.50	51,232.50	10,867.50	15,525.00
1	Laboratory waterbath with racks	89,200.00				89,200.00	66,900.00			6,690.00	73,590.00	15,610.00	22,300.00
1	Sterop zoom microscope	88,000.00				88,000.00	66,000.00			6,600.00	72,600.00	15,400.00	22,000.00
1	Microscope with Photography & Display	164,007.00				164,007.00	123,000.28			12,300.53	135,300.81	28,701.20	41,001.72
1	Colony Counter	104,700.00				104,700.00	78,525.00			7,852.50	86,377.50	18,322.50	26,175.00
1	Brookfield	258,199.20				258,199.20	193,649.38			19,364.94	213,014.32	45,184.88	64,549.82
1	Turbidity Meter	78,935.00				78,935.00	53,281.14			5,920.13	59,201.27	19,733.74	25,653.86
1	Calibration kit set	17,220.00				17,220.00	11,623.50			1,291.50	12,915.00	5,596.50	7,500.00
1	Sample cuvettes	4,990.00				4,990.00	3,368.25			374.25	3,742.50	1,621.75	2,120.00
1	Shaker	220,050.00				220,050.00	148,533.75			16,503.75	165,037.50	55,012.50	71,516.25
2	Moisture Balance	527,046.00				527,046.00	355,756.05			39,528.45	395,284.50	131,761.50	171,289.95
1	Cooled Fncubator	146,070.00				146,070.00	98,597.25			10,955.25	109,552.50	36,517.50	47,472.75
1	Automatic Kjeldhal Apparator	696,070.00				696,070.00	463,097.25			51,455.25	514,552.50	171,517.50	222,972.75
1	Melting Point Apparator	198,562.50				198,562.50	134,029.70			14,892.19	148,921.89	49,640.61	64,532.80
1	Dryer	250,000.00				250,000.00	168,750.00			18,750.00	187,500.00	62,500.00	81,250.00
1	Olive Gear Motor	245,240.00				245,240.00	147,144.00			18,393.00	165,537.00	79,703.00	98,096.00
1	REAP - Stark moisture detector receiver	32,256.00				32,256.00	19,353.60			2,419.20	21,772.80	10,483.20	12,902.40
1	Sieve Shaker	685,400.00				685,400.00	257,025.00			51,405.00	308,430.00	376,970.00	428,375.00
1	Rubber Roll Sheller	255,500.00				255,500.00	95,812.50			19,162.50	114,975.00	140,525.00	159,887.50
1	Fume Cupboard	500,319.00				500,319.00	187,619.65			37,523.93	225,143.59	275,175.42	312,699.35
1	Abrasive flour mill	242,300.00				242,300.00	72,690.00			18,172.50	90,862.50	151,437.50	169,610.00
1	power hack saw	423,652.17				423,652.17	95,321.73			31,773.91	127,095.64	296,556.53	328,330.44
2	Whiteness meter	86,400.00				86,400.00	58,320.00			6,480.00	64,800.00	21,600.00	28,080.00
1	Dial Thermometer	41,650.00				41,650.00	28,113.75			3,123.75	31,237.50	10,412.50	13,536.25
2	Dial Thermometer	18,924.00				18,924.00	12,773.70			1,419.30	14,193.00	4,731.00	6,150.30
2	Dial Thermometer	12,000.00				12,000.00	8,100.00			900.00	9,000.00	3,000.00	3,900.00
1	Turbine ventilation	16,800.00				16,800.00	11,340.00			1,260.00	12,600.00	4,200.00	5,460.00
4	Thermometers	352,500.00				352,500.00	225,000.00			26,437.50	251,437.50	101,062.50	127,500.00
6	Moisture meter	146,000.96				146,000.96	43,950.14			10,950.07	54,900.21	91,100.74	102,050.82
1	Amply meter	6,275.00				6,275.00	4,235.64			470.63	4,706.27	1,568.74	2,039.36
1	Rice Flour Machine	100,623.00				100,623.00	67,920.53			7,546.73	75,467.26	25,155.75	32,702.47
1	Glass Polisher	377,187.50				377,187.50	254,601.54			28,289.06	282,890.60	94,296.90	122,585.96
1	Gass Analyser	650,800.00				650,800.00	390,480.00			48,810.00	439,290.00	211,510.00	260,320.00
1	Digital fruit firmness tester	228,800.00				228,800.00	137,280.00			17,160.00	154,440.00	74,360.00	91,520.00
1,16	Dial Thermometer & Probes	220,800.00				220,800.00	132,480.00			16,560.00	149,040.00	71,760.00	86,320.00
1	Water Analys meter	261,625.00				261,625.00	137,353.12			19,621.88	156,974.99	104,650.02	124,271.88
1	Solar Dryer	405,122.56				405,122.56	212,689.32			30,384.19	243,073.51	162,049.05	192,433.24
1	Pest Control	131,372.15				131,372.15	68,970.34			9,852.90	78,823.24	52,948.91	62,401.81
1	Rice flacking Machine	616,384.61				616,384.61	277,373.08			46,228.85	343,651.93	292,782.68	339,011.53
	Sub Total	40,972,172.47	0.00	0.00	0.00	40,972,172.47	31,950,436.07	0.00	0.00	2,134,814.48	34,085,250.56	6,886,921.91	9,021,736.40
	Rice Based Food Products Plant	29,110,000.00				29,110,000.00	29,109,999.00			0.00	29,109,999.00	1.00	1.00
	Sub Total	29,110,000.00	0.00	0.00	0.00	29,110,000.00	29,109,999.00	0.00	0.00	0.00	29,109,999.00	1.00	1.00

Note
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Descriptions	No	Balance as at 1.1.2012		Adjustment to Opening Balance	Disposed		Additions During the Year	Balance as at 31.12.2012		Aggregated Depreciation as at 31.12.2012		Depreciation for the Year	Aggregated Depreciation as at 31.12.2012		Balance as at 31.12.2012	
		Rs	Rs		Rs	Rs		Rs	Rs	Rs	Rs		Rs	Rs	Rs	Rs
Equipments																
Office Laboratory Workshop & Mill		51,377.84						51,377.84					51,377.84			0.00
Stores		2,600.00						2,600.00					2,600.00			0.00
Weighing machine	4	2,550.00						2,550.00					2,550.00			0.00
Moisture meter	84	237,676.56						237,676.56					237,676.56			0.00
Stainless Steel Vessel Planties	10,10	8,550.00						8,550.00				190.00	8,170.00			570.00
Kitchen knife, Spoons, Chopping Board	6,25,3	9,092.00						9,092.00				200.00	8,692.00			600.00
Dial Thermometer	6	8,100.00						8,100.00					8,100.00			0.00
National Gas cooker	4	17,000.00						17,000.00					17,000.00			0.00
Bottle Sealer	1	2,250.00						2,250.00					2,250.00			0.00
Poly Sealer	2	4,395.00						4,395.00				249.50	3,896.00			748.50
Plastic Vessel	11	3,760.00						3,760.00					3,760.00			0.00
Electric Kettle -	3	13,540.00						13,540.00				1,065.00	7,745.00			6,880.00
Food Processign machine	1	117,450.00						117,450.00					117,450.00			0.00
Food Processor	2	25,000.00						25,000.00					25,000.00			0.00
Deep fryer	2	19,000.00						19,000.00					19,000.00			0.00
Electric Oven	4	31,790.00						31,790.00				1,584.00	26,762.00			6,612.00
Kitchen Grinder	2	4,392.00						4,392.00					4,392.00			0.00
Kitchen Beeter	2	3,240.00						3,240.00					3,240.00			0.00
Cooking pot / Pans	2	3,600.00						3,600.00					3,600.00			0.00
Cutlery set	8	5,472.00						5,472.00					5,472.00			0.00
Kenwood Food Processor	1	36,300.00						36,300.00					36,300.00			0.00
Gas Sllinder & House and others	2	30,448.00						30,448.00					30,448.00			0.00
Gas Cookers with tube	8,7	37,400.00						37,400.00				3,140.00	19,785.00			20,755.00
Microvave Oven	2	23,800.01						23,800.01					23,800.00			0.00
Pressure Cooker	2	6,350.00						6,350.00					6,350.00			0.00
Caste Recorder	1	3,720.00						3,720.00					3,720.00			0.00
Gas Slinders	5	17,299.00						17,299.00					17,299.00			0.00
Burner	1	3,850.00						3,850.00					3,850.00			0.00
Moisture Meter	1	25,875.00						25,875.00					25,875.00			0.00
Emergency light with table lamp	1	4,000.00						4,000.00					4,000.00			0.00
Codliang machine	1	10,811.25					2,600.00	10,811.25			714.00		10,811.25			0.00
Calculator	15	16,582.50						14,859.51					15,573.51			1,722.99
Digital Multimeter & power controler	1	44,050.00						44,050.00					44,050.00			0.00
Time machine - small	1	34,000.00						34,000.00					34,000.00			0.00
- large	2	84,000.00						84,000.00					84,000.00			0.00
Cellular Phone	1	26,700.00						26,700.00					26,700.00			0.00
Slapler	4	4,954.00						4,954.00					4,954.00			0.00
Wall clock	4	8,159.00						8,159.00					8,159.00			0.00
Digital clock	1	7,340.00						7,340.00					7,340.00			0.00
Puncher	5	580.00					825.00	580.00					662.50			0.00
Oasis quat snrtzer	1	6,727.50						6,727.50					6,727.50			0.00
Micro - Chlor	1	6,750.00						6,750.00					6,750.00			0.00
Digital Themeter	4	112,769.50						59,963.80				8,800.95	68,764.75			52,805.70
Immersion probe	2	7,510.00						7,510.00					7,510.00			0.00
Spear temperature probes	2	10,124.00						10,124.00					10,124.00			0.00
Thermometers - General 10 - 360	3	1,950.00						1,950.00					1,950.00			0.00
Thermometers - General 10 - 250	3	1,950.00						1,950.00					1,950.00			0.00
Thermometers - General 10 - 110	3	1,665.00						1,665.00					1,665.00			0.00
Thermometers - Murcury enclosed scale	1	5,900.00						5,900.00					5,900.00			0.00
Drill Machine	1	40,750.00						40,750.00					40,750.00			0.00
Cutroff Machine	1	64,032.49						64,032.49					64,032.49			20,375.00
Air Babat Sealar	1	14,500.00						14,500.00					14,500.00			32,016.23
Blenders	4	20,699.00						20,699.00					20,699.00			7,250.00
Pricing Machine	1	1,950.00						1,950.00					1,950.00			15,749.10
Balance C/F		1,294,331.65		0.00		0.00	3,425.00	1,297,756.65		1,117,420.62		31,727.60	1,149,148.22		148,608.42	176,911.02

Note
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Descriptions	No	Balance as at 1.1.2012		Adjustment to Opening Balance	Disposed	Additions During the Year		Balance as at 31.12.2012		Aggregated Depreciation as at 1.1.2012	Adjustment to Opening Balance	Disposed	Depreciation for the Year		Aggregated Depreciation as at 31.12.2012	Balance as at 31.12.2012	
		Rs	Rs			Rs	Rs	Rs	Rs				Rs	Rs		Rs	Rs
Equipments																	
Balance C/F		1,294,331.65		0.00		3,425.00		1,297,756.65		1,117,420.62		0.00		31,727.60		1,149,148.22	148,608.42
Timer Programmable	3	8,370.00						8,370.00		8,370.00				8,370.00		8,370.00	0.00
Water distill plant	1	29,700.00						29,700.00		29,700.00				29,700.00		29,700.00	0.00
Refractometer Fan	2	74,870.00						74,870.00		74,870.00				74,870.00		74,870.00	0.00
Eblometer with Replacement Thermometer	1	54,900.00						54,900.00		54,900.00				54,900.00		54,900.00	0.00
Bunsan burner	6	2,700.00						2,700.00		2,700.00				2,700.00		2,700.00	0.00
Electric Bunsan burner	1	43,353.60						43,353.60		43,353.60				43,353.60		43,353.60	0.00
Heiddephe	1	69,669.60						69,669.60		69,669.60				69,669.60		69,669.60	0.00
Alippee 7645 rectangular	3	40,924.80						40,924.80		40,924.80				40,924.80		40,924.80	0.00
Alippee 7550 rectangular	10	101,376.00						101,376.00		101,376.00				101,376.00		101,376.00	0.00
Duplo Spare Drum of	1	104,500.00						104,500.00		104,500.00				104,500.00		104,500.00	0.00
Food Dehydrator	1	1,494.99						1,494.99		1,494.99				1,494.99		1,494.99	0.00
Airconditioners	18	1,262,390.41			83,500.00			1,345,890.41		921,162.06			72,935.67	994,097.73		351,792.68	341,228.35
Hot Plate	2	60,876.00						60,876.00		60,876.00			6,087.60	60,876.00		60,876.00	0.00
Cooking pot / Pans	9	37,650.00						37,650.00		37,650.00			3,765.00	27,080.00		10,560.00	14,325.00
Water Filter	1	2,971.00						2,971.00		2,971.00			2,971.00	0.00	0.00	297.10	
T V buster	2	5,990.00						5,990.00		5,990.00			599.00	4,154.00		1,836.00	2,435.00
Sealers	3	4,783.00						4,783.00		3,945.20			478.30	4,423.50		359.50	837.80
Calculator	1	1,525.00						1,525.00		1,372.50			152.50	1,525.00		0.00	152.50
Micro Phone stand	1	510.00						510.00		459.00			51.00	510.00		0.00	51.00
Micro Phone	3	25,499.97						25,499.97		22,949.97			2,550.00	25,499.97		0.00	2,550.00
Thermometer	1	39,620.00						39,620.00		35,658.00			3,962.00	39,620.00		0.00	3,962.00
Chromatography columns	1	1,980.00						1,980.00		1,782.00			198.00	1,980.00		0.00	198.00
Staining Trough Glass	1	650.00						650.00		585.00			65.00	650.00		0.00	65.00
Mouse	1	1,794.00						1,794.00		1,614.60			179.40	1,794.00		0.00	179.40
Lamp	6	8,070.00			4,750.00			12,820.00		4,590.00			1,282.00	5,872.00		6,948.00	3,480.00
Magi Boards	4	107,410.00						107,410.00		69,603.75			10,741.00	80,344.75		27,065.25	37,806.25
Over head Projector	3	6,500.00						6,500.00		2,085.00			650.00	2,715.00		3,785.00	4,435.00
Cash Box	1	575.00						575.00		460.00			57.50	517.50		57.50	115.00
Tape	6	204,205.00						204,205.00		94,102.00			20,420.50	114,522.50		89,682.50	110,103.00
Water Pump	1	7,700.00						7,700.00		6,160.00			770.00	6,930.00		770.00	1,540.00
Vacuum cleaner	5	17,700.00						17,700.00		10,100.00			1,770.00	11,870.00		5,830.00	7,600.00
Wall Fans	6	45,740.00						45,740.00		11,484.00			4,574.00	16,058.00		29,682.00	34,256.00
Fans	4	13,700.00						14,700.00		4,110.00			1,470.00	5,580.00		9,120.00	9,590.00
Staplers	4	13,440.00						17,940.00		3,759.00			1,794.00	6,003.00		11,937.00	9,681.00
Tape Recorder	1	2,500.00						2,500.00		2,000.00			250.00	2,250.00		250.00	500.00
Kee Box	1	15,093.75		4,500.00				15,093.75		12,074.98			1,509.38	13,584.35		1,509.41	3,018.77
CARP- Blender	1	3,633.00						3,633.00		2,906.40			363.30	3,269.70		363.30	726.60
Pressure Cooker	1	475.00						475.00		332.50			47.50	380.00		95.00	142.50
Kitchen Scalor	3	7,225.00						7,225.00		4,237.50			722.50	5,020.00		2,205.00	2,927.50
Hand mixer	1	4,600.00						4,600.00		3,220.00			460.00	3,680.00		920.00	1,380.00
Over head Projector Screen	2	2,900.00						2,900.00		1,740.00			290.00	2,030.00		870.00	1,160.00
Hand Light	4	49,000.00			12,490.00			61,490.00		19,200.00			6,149.00	25,349.00		36,141.00	29,800.00
Grass Cutter	1	11,582.00						11,582.00		6,949.20			1,158.20	8,107.40		4,632.80	4,632.80
Rice Flour Product Machine	1	172,360.00						172,360.00		172,360.00			172,360.00	0.00		0.00	0.00
Incubator	2	66,000.00						66,000.00		33,000.00			6,600.00	39,600.00		26,400.00	33,000.00
Weighing machine	3	21,600.00						21,600.00		6,630.00			2,160.00	8,790.00		12,810.00	14,970.00
Rice Cookers	1	6,670.00						6,670.00		3,335.00			667.00	4,002.00		2,668.00	3,335.00
Dateslamp	1	4,065,858.77		4,500.00				4,175,523.77		3,201,904.57		450.00	187,429.04	3,389,783.60		785,740.16	863,954.19
Balance C/F					0.00	105,165.00		4,175,523.77		3,201,904.57		450.00	187,429.04	3,389,783.60		785,740.16	863,954.19

Descriptions	No	Balance as at 1.1.2012		Adjustment to Opening Balance	Disposed		Additions During the Year		Balance as at 31.12.2012		Aggregated Depreciation as at 1.1.2012		Adjustment to Opening Balance	Disposed		Depreciation for the Year		Aggregated Depreciation as at 31.12.2012		Balance as at 31.12.2012		Balance as at 31.12.2011		
		Rs	Rs		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Equipments																								
Balance C/F			4,065,858.77	4,500.00		0.00	105,165.00		4,175,523.77	3,201,904.57	450.00	0.00	187,429.04		0.00	3,389,783.60		785,740.16		863,954.19				
Floor Polisher	1		21,826.00						21,826.00	8,730.40			2,182.60			10,913.00		10,913.00		13,095.60				
Buffer set with spoon	2		98,120.00						98,120.00	39,248.00			9,812.00			49,060.00		49,060.00		58,872.00				
Balance	2		4,600.00		880.00				5,480.00	1,655.00			548.00			2,203.00		3,277.00		2,945.00				
Ventilator	1		17,000.00						17,000.00	6,800.00			1,700.00			8,500.00		8,500.00		10,200.00				
Exhaust fan	1		12,000.00						12,000.00	4,800.00			1,200.00			6,000.00		6,000.00		7,200.00				
Rechargeable Toach	1		2,375.00						2,375.00	950.00			237.50			1,187.50		1,187.50		1,425.00				
Juck	2		980.00						980.00	392.00			98.00			490.00		490.00		588.00				
Tray	1		990.00						990.00	396.00			99.00			495.00		495.00		594.00				
Tee cups	12		2,100.00						2,100.00	840.00			210.00			1,050.00		1,050.00		1,260.00				
Spoon	2		110.00						110.00	44.00			11.00			55.00		55.00		66.00				
Sound system	1		160,000.00						160,000.00	64,000.00			16,000.00			80,000.00		80,000.00		96,000.00				
Stickers printer	1		12,500.00						12,500.00	3,500.00			1,250.00			4,750.00		4,750.00		7,500.00				
poli celear	1		37,100.00						37,100.00	7,420.00			3,710.00			11,130.00		11,130.00		25,970.00				
Flour mixture	1		2,500.00						2,500.00	250.00			250.00			500.00		500.00		2,250.00				
stinihopper machine	1		50,736.00						50,736.00	5,073.60			5,073.60			10,147.20		10,147.20		45,662.40				
table hand grinder	1		2,300.00						2,300.00	230.00			230.00			460.00		460.00		2,070.00				
scaaner	1		12,550.00						12,550.00	1,255.00			1,255.00			2,510.00		2,510.00		10,040.00				
digital cammera with memory chip	1		15,500.00		15,500.00				15,500.00				1,550.00			1,550.00		1,550.00		13,950.00				
Vedio Cammera Items	2		40,630.00		40,630.00				40,630.00				4,063.00			4,063.00		4,063.00		36,567.00				
spray	1		33,200.00		33,200.00				33,200.00				3,320.00			3,320.00		3,320.00		29,880.00				
farm equipment	7		10,500.00		10,500.00				10,500.00				1,050.00			1,050.00		1,050.00		9,450.00				
seasor	3		10,770.00		10,770.00				10,770.00				1,077.00			1,077.00		1,077.00		9,693.00				
extention cords	2		465.00		465.00				465.00				46.50			46.50		46.50		418.50				
brix hydrometer	1		3,360.00		3,360.00				3,360.00				336.00			336.00		336.00		2,352.00				
charger torch	2		3,800.00		3,800.00				3,800.00				380.00			380.00		380.00		2,660.00				
shifter	1		46,000.00		46,000.00				46,000.00		4,600.00		4,600.00			9,200.00		9,200.00		36,800.00				
Icecream machien Power gurd	1		189,950.00		189,950.00				189,950.00				18,995.00			18,995.00		18,995.00		170,955.00				
Promote Packaging Methods Project																								
Electrical Equipment																								
Balance			51,308.00	50,500.00		0.00	412,360.00		5,024,973.77	3,374,574.57	5,050.00	0.00	272,374.04		0.00	3,651,988.60		1,372,975.16		1,187,539.19				

Note
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No	Descriptions	Balance as at 1.1.2012		Adjustment to Opening Balance		Disposed		Additions During the Year		Balance as at 31.12.2012		Aggregated Depreciation as at 31.12.2012		Depreciation for the Year		Balance as at 31.12.2012		Balance as at 31.12.2011		
		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
	Furniture & Fittings																			
1	Office Laboratory Workshop & Mill	3,912,102.58								3,912,102.58										
25	Office Equipment - Conference Table	42,000.00								42,000.00										
2	Office Equipment - Conference Chairs	118,750.00								118,750.00										
2	At 1400 writing table	15,149.91								15,149.91										
2	At 135 Side returns	11,362.44								11,362.44										
2	At S2 drawers	7,574.97								7,574.97										
2	500 TGA chairs	15,926.85								15,926.85										
2	6404 EA V/chairs	13,207.62								13,207.62										
2	Utility writing table	15,981.23								15,981.23										
2	Utility armchairs	4,721.73								4,721.73										
4	Utility chairs W/outarms	9,080.25								9,080.25										
1	Standard Steel cupboard	6,658.78								6,658.78										
3	Filling cabinet - for drawers	22,950.00								22,950.00										
8	Filling cabinet	65,558.64								65,558.64										
1	Side unit 30*20*13 with brown tap	4,347.98								4,347.98										
1	Cash Box - Standard	1,289.19								1,289.19										
5	Table Fans	24,540.00								24,540.00										
2	Computer table	20,200.00								20,200.00										
6	Cupboards	59,860.00								59,860.00										
1	Aluminium Cupboards	30,000.00								30,000.00										
31	Tables	235,791.25								235,791.25										
9	Steel Table	96,670.00								96,670.00										
1	Cupboards	14,500.00								14,500.00										
11	Steel filling cabinet	88,618.82								88,618.82										
7	Steel writing tables	46,850.00								46,850.00										
5	Wooden tables	17,500.00								17,500.00										
18	Computer table	117,400.00								117,400.00										
2	Laboratory - Tables	8,000.00								8,000.00										
18	- Stools	14,910.00								14,910.00										
46	Conference - Chairs	99,418.00								99,418.00										
2	Library Cupboards	24,829.06								24,829.06										
1	Tender Box	2,125.00								2,125.00										
2	Filling rack	9,850.00								9,850.00										
1	Dining Table	3,000.00								3,000.00										
1	Tea Table	1,500.00								1,500.00										
27	Chairs	85,188.25								85,188.25										
10	Arm Chair	21,620.00								21,620.00										
138	Plastic Chairs	87,991.00								87,991.00										
4	Steel chairs	13,814.00								13,814.00										
2	Typing Tables	9,980.00								9,980.00										
2	Conference - Tables	29,200.00								29,200.00										
1	- Chairs	77,900.00								77,900.00										
10	Steel Cupboard	52,950.00								52,950.00										
7	Racks	22,625.00								22,625.00										
4	Stand Fans	21,650.00								21,650.00										
5	Mattress	142,622.00								142,622.00										
2	Stools	3,450.00								3,450.00										
14	Pillows	2,750.00								2,750.00										
2	Nets	1,500.00								1,500.00										
4	Bad	23,150.00								23,150.00										
2	mage boards	3,850.00								3,850.00										
4	Mahogani Bads	83,200.00								83,200.00										
1	Mahogani Cupboard	64,000.00								64,000.00										
	Sub Total	5,829,664.55	0.00	0.00	0.00	15,100.00	0.00	5,944,764.55	5,451,021.23	5,451,021.23	0.00	0.00	118,115.40	5,569,136.63	375,627.92	478,643.32				

Note
05 - A

Descriptions	No	Balance as at 1.1.2012		Adjustment to Opening Balance	Disposed	Additions During the Year		Balance as at 31.12.2012		Aggregated Depreciation as at 1.1.2012		Adjustment to Opening Balance	Disposed	Depreciation for the Year		Aggregated Depreciation as at 31.12.2012		Balance as at 31.12.2012		Balance as at 31.12.2011	
		Rs	Rs			Rs	Rs	Rs	Rs	Rs	Rs			Rs	Rs	Rs	Rs	Rs	Rs		Rs
Furniture & Fittings																					
Balance C/F		5,929,664.55	0.00	0.00	0.00	15,100.00	5,944,764.55	5,451,021.23	0.00	118,115.40	5,569,136.63	375,627.92	478,643.32								
Filling cabinet	16	260,205.00					260,205.00	96,893.50		26,020.50	122,914.00	137,291.00	163,311.50								
Kitchen cupboards	1	203,320.00					203,320.00	101,660.00		20,332.00	121,992.00	81,328.00	101,660.00								
Computer tables	9	35,749.75				29,806.25	65,556.00	15,249.90		6,555.60	21,805.50	43,750.49	20,499.85								
Plastic chairs	40	25,960.00				9,000.00	25,960.00	12,070.00		2,596.00	14,666.00	11,294.00	13,890.00								
Computer chairs	5	20,505.20					29,505.20	9,141.55		12,092.07	17,413.12	11,363.65	11,363.65								
Chairs	88	338,973.00					338,973.00	169,496.50		33,897.30	203,383.80	135,589.20	169,496.50								
Executive chairs	24	175,492.13					175,492.13	87,746.02		17,549.20	105,285.21	70,196.91	87,746.11								
Auditorium chairs	140	986,125.00					986,125.00	493,062.50		98,612.50	591,675.00	394,450.00	493,062.50								
Tables	36	510,903.36					510,903.36	229,294.02		51,090.34	280,384.36	230,519.00	281,609.34								
Reading tables	8	97,472.41					97,472.41	29,241.72		9,747.24	38,988.96	58,483.45	66,230.69								
Clark table	7	54,900.00					54,900.00	16,470.00		5,490.00	21,960.00	32,940.00	38,430.00								
Mira table	2	13,200.00					13,200.00	3,960.00		1,320.00	5,280.00	7,920.00	9,240.00								
Dining tables	3	57,960.00					57,960.00	28,980.00		5,796.00	34,776.00	23,184.00	28,980.00								
Head table	1	87,400.00					87,400.00	43,700.00		8,740.00	52,440.00	34,960.00	43,700.00								
Board room table	1	149,500.00					149,500.00	74,750.00		14,950.00	89,700.00	59,800.00	74,750.00								
OHP Stands	3	60,030.00					60,030.00	30,015.00		6,003.00	36,018.00	24,012.00	30,015.00								
Podium	1	19,435.00					19,435.00	9,717.50		1,943.50	11,661.00	7,774.00	9,717.50								
Beads	12	103,500.00					103,500.00	51,750.00		10,350.00	62,100.00	41,400.00	51,750.00								
Book racks	2	38,640.00					38,640.00	19,320.00		3,864.00	23,184.00	15,456.00	19,320.00								
Sofa set	1	93,887.50					93,887.50	37,555.00		12,989.25	50,544.25	79,348.25	56,332.50								
Sofa set stool	1	6,500.00				36,005.00	6,500.00	6,500.00		650.00	3,250.00	3,900.00	3,900.00								
Noties board	1	23,300.00					23,300.00	9,320.00		2,330.00	11,650.00	13,980.00	13,980.00								
Fin board	2	29,160.00					29,160.00	11,664.00		2,916.00	14,580.00	14,580.00	17,496.00								
reading chair	32	140,492.80					140,492.80	42,147.85		14,049.28	56,197.13	84,295.67	98,344.95								
Office chair	12	38,400.00					38,400.00	11,520.00		3,840.00	15,360.00	23,040.00	26,880.00								
Dressing table	1	15,580.00					15,580.00	6,232.00		1,558.00	7,990.00	7,990.00	9,348.00								
High back chairs	7	56,267.75					56,267.75	11,263.56		5,626.78	16,880.34	39,387.42	45,014.19								
Ex- Tables	5	31,437.00					31,437.00	6,287.40		7,939.58	14,226.98	65,169.78	25,149.60								
Side tables	2	17,280.00					17,280.00	3,456.00		1,728.00	5,184.00	12,096.00	13,824.00								
Movable cabinet	2	16,200.00					16,200.00	3,240.00		1,620.00	4,860.00	11,340.00	12,960.00								
moveble cabinet for UPS CPU	2	5,940.00					5,940.00	1,188.00		594.00	1,782.00	4,158.00	4,752.00								
Ex- high back chairs	2	19,620.00					19,620.00	3,924.00		1,962.00	5,886.00	13,734.00	15,696.00								
Ex - law back chairs	7	31,860.00					31,860.00	6,372.00		5,885.00	12,257.00	46,593.00	25,488.00								
off- cupboards	1	13,800.00					13,800.00	2,760.00		1,380.00	4,140.00	9,660.00	11,040.00								
Filling cabinet - 4 draw	1	17,500.00					17,500.00	3,500.00		1,750.00	5,250.00	12,250.00	14,000.00								
Wrating tables	3	11,150.00					11,150.00	2,230.00		3,990.00	6,220.00	33,680.00	8,920.00								
Cabinet	1	3,655.22					3,655.22	1,096.55		1,595.00	1,595.00	14,355.00	0.00								
catalog box	1	92,180.00					92,180.00	18,436.00		3,655.22	1,462.07	2,193.15	2,559.67								
Exhibition hut	1	80,326.40					80,326.40	24,097.92		9,218.00	27,654.00	64,526.00	73,744.00								
Book racks	4	89,152.00					89,152.00	26,745.60		8,032.64	32,130.56	48,195.84	56,228.48								
display racks	4	13,750.00					13,750.00	4,125.00		8,915.20	35,660.80	53,491.20	62,406.40								
Taval racks	19	8,500.00					8,500.00	2,550.00		4,375.00	11,500.00	32,250.00	9,625.00								
Exhibition board	1							850.00		850.00	3,400.00	5,100.00	5,950.00								
Sub Total		10,024,874.07	30,000.00	0.00	0.00	209,560.00	10,264,434.07	7,215,830.32	3,000.00	550,082.34	7,768,912.65	2,495,521.39	2,809,043.75								

Note
05 - A

Descriptions	No	Balance as at 1.1.2012		Adjustment to Opening Balance	Disposed		Additions During the Year		Balance as at 31.12.2012		Aggregated Depreciation as at 1.1.2012		Adjustment to Opening Balance		Disposed		Depreciation for the Year		Aggregated Depreciation as at 31.12.2012		Balance as at 31.12.2012		Balance as at 31.12.2011			
		Rs	Rs		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	
Electric & Other Fittings																										
Office Laboratory Workshop & Mill																										
Sink & fittings	4	522,917.41								522,917.41										522,917.41					0.00	
Scien	1	21,050.00								13,210.00										14,190.00					6,860.00	
Celling fan	11	67,000.00		9,840.00						67,000.00										67,000.00					0.00	
Name Board	8	40,400.00								50,240.00				984.00						20,288.00					25,865.00	
Cartan - Colombo office		181,100.00								136,270.00										142,505.00					38,595.00	
Electrical fittings for Generator		112,512.96								22,502.60										33,753.90					78,759.07	
		393,700.00								354,330.00										393,700.00					39,010.36	
Sub total		1,338,680.37		9,840.00		0.00		0.00		1,348,520.37			984.00						62,605.30				154,166.07		207,915.36	
Books																										
Library																										
		1,472,728.55						8,350.00		1,481,078.55										60,801.00					295,361.36	
Sub Total		1,472,728.55		0.00		0.00		8,350.00		1,481,078.55			0.00						60,801.00				295,361.36		347,812.36	
Computer																										
Note Book Computer	8	1,219,251.75								1,145,751.75										1,186,251.75					73,500.00	
Computer U.P.S.	35	265,607.44								284,107.44										18,745.75					32,909.00	
DVD Writer	3	21,150.00								11,537.50										6,850.00					9,612.50	
Computer Monitors	6	64,900.00								84,750.00										12,712.50					15,125.00	
Computer & Printers	26.32	3,544,868.12								3,642,118.12										3,451,143.12					199,450.00	
Computer Software-Thibus	2	39,768.75								39,768.75										39,768.75					0.00	
Computer Modem	1	20,790.00								20,790.00										20,790.00					0.00	
Flash memory	36	109,315.00								124,765.00										17,881.25					34,012.50	
hard disk	3	9,750.00								29,250.00										7,312.50					6,000.00	
Dual core processor	1	8,500.00								8,500.00										2,125.00					4,250.00	
speaker set	1	3,000.00								3,000.00										750.00					1,500.00	
Plotter with computer	1	383,000.00								383,000.00										383,000.00					0.00	
Sub Total		5,689,901.06		0.00		0.00		240,800.00		5,930,701.06			5,311,171.31						212,602.00				406,927.75		378,739.75	
Telephone & Fittings																										
Telephone	11	99,146.76								105,244.86										6,521.77					18,843.61	
Intercom Phone	14	147,117.55								151,307.55										2,902.00					4,014.00	
mobial phone	5	42,990.00								59,440.00										11,898.00					17,152.00	
Mobial internet system	2	20,790.00								20,790.00										4,158.00					5,350.00	
inter net network	9	55,460.00								66,560.00										12,092.00					29,034.00	
Sub Total		365,504.31		0.00		0.00		37,838.10		403,342.41			291,110.70						37,561.77				74,669.94		74,393.61	
Vehicles																										
Jeeps	2	410,667.72								410,667.72										410,665.72					2.00	
Van	2	9,589,850.00								9,589,850.00										4,129,849.00					7,280,001.00	
Lorry	2	464,554.67								464,554.67										464,552.67					2.00	
Cycle	1	1,250.00								1,250.00										1,250.00					0.00	
Cycle	2	13,900.00								13,900.00										13,900.00					0.00	
Motor Cycle	7	440,060.15								440,060.15										440,060.15					0.00	
Double Cab, 4 WD	2	4,725,000.00								4,725,000.00										4,724,998.00					2.00	
Double Cab, 4 WD	3	8,457,725.00								3,861,243.00										5,010,363.00					4,596,482.00	
Motor Car	1	1,450,000.00								1,449,999.00										1,449,999.00					1.00	
Jeeps	1	2,800,000.00								2,800,000.00										2,800,000.00					0.00	
Gas constation	1	98,225.00								58,935.00										19,645.00					39,290.00	
Land Rower	1	42,731.28								42,730.28										42,730.28					1.00	
Kubota tractor	1	11,450.00								11,450.00										11,449.00					1.00	
Sub Total		28,505,413.82		0.00		0.00		0.00		28,505,413.82			16,589,631.82						2,986,765.00				8,927,017.00		11,915,782.00	
Agro-Farm																										
Farm- Garden																										
Farm- Garden -Water System																										
Farm																										
		302,948.93								302,948.93										302,948.92						0.00
		542,829.55								542,829.55										542,829.56						0.00
		408,155.74								408,155.74										408,155.74						0.00
Sub Total		1,253,934.22		0.00		0.00		0.00		1,253,934.22			1,253,934.22						0.00				0.00		0.00	

6 Patent Certificate for the production of "Rice Based Instant Soup Cube", inovated by Mrs Hemanthika Jayawardhana.

		Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
7 Current Liabilities			
Advances	7.1	520,086.00	476,353.77
Accrued Expenses	7.2	5,291,643.44	4,556,921.64
Deposits	7.3	454,439.00	487,439.00
Retention	7.4	2,953,395.09	4,105,040.83
Creditors Control Account	7.5	15,353,975.94	37,845,629.00
Gratuity fund	7.6	13,734,660.35	12,418,347.00
		<u>38,308,199.82</u>	<u>59,889,731.24</u>
7.1 Advances			
Suspense Account Salary		2,819.58	2,819.58
Suspense Account - General		491,619.42	448,387.19
Special Salary		25,647.00	25,147.00
		<u>520,086.00</u>	<u>476,353.77</u>
7.2 Accrued Expenses			
Accrued Tax for Interest		188,130.75	120,003.64
Accrued Expenses - R & D		5,080,992.55	4,332,017.64
Accrued Expenses - Head office		22,390.14	104,770.36
Head Office creditor		130.00	130.00
		<u>5,291,643.44</u>	<u>4,556,921.64</u>
7.3 Deposits			
Contract Supplies		5,665.00	5,665.00
Tender - R&D		168,920.00	201,920.00
Tender - Head Office		279,854.00	279,854.00
		<u>454,439.00</u>	<u>487,439.00</u>
7.4 Retention			
Contract Works		2,425,079.71	2,214,906.22
Unpaid - salary		248,476.01	212,987.64
Unpaid - salary - Head office		200.00	200.00
Unpaid - wages		16,067.57	16,067.57
Cancelled cheques		124,299.80	1,521,607.40
Regional Economic Advancement Project 2 -Matale		139,272.00	139,272.00
		<u>2,953,395.09</u>	<u>4,105,040.83</u>
7.5 Creditors Control Account			
Other creditors		328,295.00	677,760.00
7.5.1 Plastic crates-Fund		12,675,600.00	36,772,290.00
Paboling Vassals-Fund		2,350,080.94	395,579.00
		<u>15,353,975.94</u>	<u>37,845,629.00</u>
7.6 Gratuity fund		<u>13,734,660.35</u>	<u>12,418,347.00</u>
7.5.1 Plastic crates-Fund			
Balance as at 01.01.2012		36,735,040.00	23,820,570.00
paid to ministry		25,000,000.00	
		<u>11,735,040.00</u>	
Plastic crates sales		940,560.00	12,951,720.00
		<u>12,675,600.00</u>	<u>36,772,290.00</u>

8 EQUITY

Initiate Capital	69,907,594.42	69,907,594.42
Government Grant	72,750,229.02	72,750,229.02
Foreign Loan	8,368,214.00	8,368,214.00
Funds Received from General Treasury	<u>30,509,250.00</u>	<u>30,509,250.00</u>
	181,535,287.44	181,535,287.44
Accumilative Depreciation	<u>140,425,280.76</u>	<u>131,431,936.76</u>
	<u>41,110,006.68</u>	<u>50,103,350.68</u>

9 Accumulative Revenue

Accumulative Depreciation Adjustment	140,425,280.76	131,431,936.76
Accumulative Revenue	<u>(49,937,553.81)</u>	<u>(36,405,955.83)</u>
	<u>90,487,726.95</u>	<u>95,025,980.93</u>

Note	Year Ended 31 st December 2012 Rs	Year Ended 31 st December 2011 Rs
10 Funds Received from General Treasury - Recurrent Income and expenditure Account	46,601,500.00	41,572,683.00
11 Funds Received from Other Agencies		
Api wawmu rata nagamu Project	3,274,063.00	20,359,952.21
Govi bara Project		1,340,751.05
World Food Project	380,797.75	67,565.10
modal village	2,061,122.74	
Daytakirula	465,326.00	
	6,181,309.49	21,768,268.36
12 Other Operating Income		
Rice Sales Profit	12.1 (3,605.51)	(185,130.00)
Machinery Sales	12.2 420,953.35	107,608.52
Hostel Income	12.3 1,167,049.03	1,202,130.07
Training Program	12.4 1,091,752.33	1,011,079.79
Auditorium fees		334,800.00
House Rent		230,121.64
General Income		214,424.17
Consultancy fees	12.5 900,195.00	122,630.75
Sale of Publications		222,835.00
farm		88,133.50
Vehicle damage Charges		30,971.70
Rice icecream sale		0.00
Interest Income	12.6 6,936,084.21	5,851,039.22
Charges -Agreement		19,525.00
Paddy Milling		92,010.00
Depreciation Adjustment for the Year	8,993,344.00	9,246,001.84
	20,917,075.24	18,588,181.20

Note	Rs	Rs
12.1 Rice Sales Profit and Loss Account		
Sales - Rice		90,342.19
Sales - Broken and Brings Rice		9,315.00
Rice Packet Sale		<u>99,657.19</u>
Cost of sale		
Paddy		
Balance as at 1.1.2012		
Stores -Paddy	29,615.12	
Form Research -Rice & kurakkan		
Add: Purchases Paddy	<u>594,040.00</u>	
	623,655.12	
Less :		
For Research		
damage	<u>623,655.12</u>	
	623,655.12	
Balance as at 31.12.2012		
Stores -Paddy	324,892.52	
Research -Paddy	<u>155,200.00</u>	
	480,092.52	
issue for Rice mill	143,562.60	
Paddy		
Balance as at 1.1.2012	0.00	
Add:Stors	<u>143,562.60</u>	
	143,562.60	
Less :		
For Research		
Issue for Rice mill		
Paddy milling	143,562.60	
Add:Parboling Cost	<u>143,562.60</u>	
	143,562.60	
Balance as at 31.12.2012		
Paddy	<u>143,562.60</u>	
Cost of milled Rice	143,562.60	
Rice mill Rice		
Balance as at 1.1.2012		
Rice mill Rice	4,932.00	
Broken rice and other	3,418.00	
Received from Rice mill	<u>143,562.60</u>	
	151,912.60	
Balance as at 31.12.2012		
Rice mill Rice	45,892.10	
Broken rice and other	<u>2,758.00</u>	
	48,650.10	
Cost of Production - Sale of Rice	103,262.50	103,262.50
Rice Sales Profit / lost		<u><u>(3,605.31)</u></u>

	Rs	Rs
12.2 Machinery Manufacturing Trading		
Profit & Loss Account		
Machinery Sales		
Machinery Sales Parboiling Vessels	634,500.00	
Machinery Sales bottle sealer	525,000.00 4,650.00	
Other Machinery Sales	<u>1,600.00</u>	<u>1,165,750.00</u>
Machinery Cost Sales		
Raw Material Balance as at 1.1.2012	118,369.92	
Add: Purchases Raw material	<u>178,185.00</u>	
	296,554.92	
For Research		
	<u>296,554.92</u>	
Raw Materials Balance as at 31.12.2012	13,658.27	
Machinery Manufacturing Cost C/F	<u><u>282,896.65</u></u>	
Machinery Balance as at 1.1.2012	377,375.00	
Machinery Manufacturing Cost B/F	<u>282,896.65</u>	
	<u>660,271.65</u>	
Add: Purchases of Machineries	1,146,600.00	
	<u>1,806,871.65</u>	
Machinery Balance as at 31.12.2012	<u>1,062,075.00</u>	
Production Cost -Sale of Machinery	<u>744,796.65</u>	<u>744,796.65</u>
Profit		<u><u>420,953.35</u></u>

Note

	Rs	Rs
12.3 Hostel Income		
Income	2,215,467.70	
Expenditure	<u>1,048,418.67</u>	<u>1,167,049.03</u>
12.4 Training Program		
Income	1,698,701.00	
Expenditure	<u>606,948.67</u>	<u>1,091,752.33</u>
12.5 Consultancy fees		
Income	1,010,300.00	
Expenditure	<u>110,105.00</u>	<u>900,195.00</u>

	Rs	Rs
12.6 Interest Income		
National Saving Bank 2- 0001- 17-99606 -Kollupitiya	1,011,232.87	
National Saving Bank 2- 0001- 17-99568 -Kollupitiya	1,011,232.87	
National Saving Bank 2- 0001- 17-99541 -Kollupitiya	1,003,047.94	
National Saving Bank 2- 0001- 17-99592 -Kollupitiya	580,548.84	
National Saving Bank 2- 0001- 17-99584 -Kollupitiya	199,195.20	
National Saving Bank 2- 0001- 17-99550 -Kollupitiya	1,003,047.94	
National Saving Bank 2- 0001- 15-77794 -Kollupitiya	880,136.99	
National Saving Bank 2- 0001- 17-99576 -Kollupitiya	272,056.70	
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	115,481.17	
National Saving Bank 1- 0001- 07-32087-Kollupitiya	1,166,851.11	7,242,831.63
With Holding Tax		
National Saving Bank 2- 0001- 17-99606 -Kollupitiya	80,898.62	
National Saving Bank 2- 0001- 17-99568 -Kollupitiya	80,898.62	
National Saving Bank 2- 0001- 17-99541 -Kollupitiya	80,243.83	
National Saving Bank 2- 0001- 17-99592 -Kollupitiya	46,443.90	
National Saving Bank 2- 0001- 17-99584 -Kollupitiya	15,935.61	
National Saving Bank 2- 0001- 17-99550 -Kollupitiya	80,243.83	
National Saving Bank 2- 0001- 15-77794 -Kollupitiya	70,410.96	
National Saving Bank 2- 0001- 17-99576 -Kollupitiya	21,764.53	
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	0.00	
National Saving Bank 1- 0001- 07-32087-Kollupitiya	93,448.10	570,288.00
		<u>6,672,543.63</u>
Banks Net Interest Income		
Interest Income Other		
Special advance Interest	7,968.24	
Distress Loan Interest	234,211.78	
Special Loan Interest	21,360.56	263,540.58
		<u>6,936,084.21</u>

INSTITUTE OF POST HARVEST TECHNOLOGY
INCOME STATEMENT
FOR THE YEAR ENDED 31 ST DECEMBER 2012

RICE BASED FOOD PRODUCT DEVELOPMENT AND
DEMONSTRATION PILOT PLANT (NOODLES)

Note	Year Ended 31 st December 2012 Rs	Year Ended 31 st December 2011 Rs
	Note	
SALES :	1,054,025.00	771,757.60
Less : Taxes	-	-
NET SALES	<u>1,054,025.00</u>	<u>771,757.60</u>
COST OF SALES		
RAW MATERIAL CONSUMED		
Stock as at 1.1. 2012		
Add: Purchases Rice	-	-
Received from Rice Mill	0.00	524,312.00
	<u>0.00</u>	<u>524,312.00</u>
Less- Rice flour Unit	<u>0.00</u>	<u>524,312.00</u>
	0.00	524,312.00
Less : Stock as at 31 st December 2012	<u>0.00</u>	<u>524,312.00</u>
Direct Expenses		
Packing Material	13.1 51,905.00	261,203.50
Production - Wages	24,000.00	7,404.10
Production - Overtime	1,457.45	20,295.66
Packing - Wages	<u>17,274.40</u>	<u>131,157.90</u>
	<u>94,636.85</u>	<u>944,373.16</u>
Factory Over heads		
Electricity	187,464.77	303,105.23
Water	42,733.76	28,517.50
Diesel	13.2 61,126.83	172,600.17
Vegetable Oil		
Repairs to Machinery	73,051.11	526,282.46
Building Maintenance	2,350.00	173,427.00
Traveling		
Printing and Stationery		
Publicity		
Sundry	127,663.50	123,224.25
Sales commission	77,116.00	29,472.40
Depreciation	13.3 <u>27,832.93</u>	<u>27,832.93</u>
Cost of Goods Manufactured C / F	<u><u>693,975.75</u></u>	<u><u>2,328,835.10</u></u>
Stock as at 1.1. 2012	837,829.35	1,628,969.98
Opening Excess Stocks		
Add : Cost of Goods Manufactured B / F	693,975.75	2,328,835.10
	<u>1,531,805.10</u>	<u>3,957,805.08</u>
Less : Stock as at 31.1.2012	349,486.74	837,829.35
Cost of Sales	1,182,318.36	3,119,975.73
Flood Damage	13.4 0.00	1,821,114.20
Real Cost of Sales	<u>1,182,318.36</u>	<u>1,298,861.53</u>
GROSS PROFIT / LOSS	<u><u>(128,293.36)</u></u>	<u><u>(527,103.93)</u></u>

Note	Rs	Rs
13.1 Packing Material		
Balance as at 1.1.2012	884,004.16	401,884.66
Add: Purchase Rice Packets	51,905.00	743,323.00
	<u>935,909.16</u>	<u>1,145,207.66</u>
Less: Rice Flour Mill		
	<u>935,909.16</u>	<u>1,145,207.66</u>
Balance as at 31.12.2012	884,004.16	884,004.16
Noodles Manufacturing Account	<u>51,905.00</u>	<u>261,203.50</u>
13.2 Diesel		
Boiler	61,126.83	172,600.17
Generator	0.00	
	<u>61,126.83</u>	<u>172,600.17</u>
2.1 Boiler		
Balance as at 1.1.2012	194,786.16	46,186.33
Add: Purchase		321,200.00
	<u>194,786.16</u>	<u>367,386.33</u>
Research projects	22,224.85	
	<u>172,561.31</u>	
Balance as at 31.12.2012	111,434.48	194,786.16
	<u>61,126.83</u>	<u>172,600.17</u>
2.2 Generator		
Balance as at 1.1.2012	34,941.00	34,941.00
Add: Purchase		
	<u>34,941.00</u>	<u>34,941.00</u>
Balance as at 31.12.2012	34,941.00	34,941.00
	<u>0.00</u>	<u>0.00</u>
13.3 Depreciation		
Building	27,832.93	27,832.93
Machinery	0.00	0.00
	<u>27,832.93</u>	<u>27,832.93</u>
13.4 Flood Damage		
noodles stock		1,042,785.74
Packing Material		78,619.00
Machinery Maintenance		526,282.46
Building Maintenance		173,427.00
	<u>0.00</u>	<u>1,821,114.20</u>

Note
14

	Head Office	Research and Development Centre	Year Ended 31 st December 2012	Year Ended 31 st December 2011
	Rs	Rs	Rs	Rs
Administration & Establishment Expenditure				
Salaries & Wages-monthly paid staff	2,215,989.40	26,869,049.31	29,085,038.71	28,858,271.92
Daily paid staff		7,330,353.42	7,330,353.42	4,318,210.86
E.P.F.	136,318.72	3,100,153.08	3,236,471.80	2,846,946.02
E.T.F.	34,079.69	775,038.21	809,117.90	711,736.47
Overtime and Holiday Pay		1,217,870.32	1,217,870.32	980,468.01
Other allowance		268,664.00	268,664.00	121,018.25
Incentives		189,948.88	189,948.88	0.00
Gratuity		3,083,812.75	3,083,812.75	1,272,454.50
Traveling expenses-Domestic	78,074.55	822,913.72	900,988.27	620,003.39
Traveling expenses-Foreign	69,549.50	142,119.92	211,669.42	164,509.33
Printing and Stationery	24,168.00	645,572.18	669,740.18	406,315.75
Office Requisites, Sundry expenses	108,207.98	919,341.89	1,027,549.87	891,421.64
Staff tea	34,936.81	593,263.00	628,199.81	516,304.82
Consumable for Research projects	14.1	489,652.51	489,652.51	174,883.84
Periodicals, journals and news papers	41,425.00	32,300.00	73,725.00	123,155.50
Running expenses of Hostel and kitchen		163,145.70	163,145.70	246,917.80
Research Projects		687,940.84	687,940.84	1,418,064.31
Seminars		361,036.13	361,036.13	0.00
Training Programs		572,863.51	572,863.51	508,574.75
Entertainment	61,364.00	225,379.93	286,743.93	200,484.00
Contract Labour		131,100.00	131,100.00	107,446.50
Welfare		1,490.00	1,490.00	1,500.00
Running expenses vehicles	673,774.48	2,306,754.62	2,980,529.10	1,866,804.72
Vehicles maintenance	445,741.54	1,773,215.21	2,218,956.75	2,659,938.57
Insurance and licenses	34,250.00	473,596.40	507,846.40	546,569.37
Buildings and Structures	38,496.81	923,403.10	961,899.91	1,048,925.79
Buildings and Structures-Special		312,168.42	312,168.42	491,142.63
Machinery	10,285.71	508,485.86	518,771.57	620,390.44
Telecommunication	135,498.16	625,861.79	761,359.95	640,234.65
Postal charges	2,995.00	84,688.50	87,683.50	74,498.50
Electricity		956,656.76	956,656.76	976,673.80
Water,		579,656.12	579,656.12	648,597.01
Rent		184,168.00	184,168.00	138,984.00
Rates and Taxes		257,611.20	257,611.20	172,905.24
Exhibition		838,044.84	838,044.84	691,423.91
Publication		138,660.00	138,660.00	0.00
Human Resources Development		82,105.60	82,105.60	34,982.00
Audit fees		250,000.00	250,000.00	250,000.00

11

73

Farm Expenses			0.00	0.00
Farm Research Expenses		248,640.00	248,640.00	86,796.40
Research for paddy			0.00	0.00
Promote Packaging Methods and Transportation for the Reduction of Post Harvest Losses			0.00	13,074,602.07
Api wawmu rata nagamu Project	14.2	5,800,511.74	5,800,511.74	7,292,350.39
Govi bara funded Project		0.00	0.00	1,340,751.05
World Food funded Project		380,797.75	380,797.75	67,565.10
Depreciation	14.3	8,939,931.57	8,939,931.57	9,195,369.32
Financial Expenses Bank Charges & Taxes		32,307.20	32,307.20	84,072.13
		<u>4,145,155.35</u>	<u>74,320,273.98</u>	<u>86,492,264.75</u>
14.1 Consumable for Research projects			489,652.51	
Diesel - Stock				
			<u>489,652.51</u>	
14.2 Api wawmu rata nagamu Project				
Dayatakerula		465,326.00		
Modern village		2,061,122.74		
Mobile vegetable stole		731,810.00		
Pack House		1,420,077.00		
Rice Icecream		1,122,176.00		
			<u>5,800,511.74</u>	
14.3 Depreciation				
Building		1,632,256.40		
Plant,machinery and equipment		2,134,814.48		
Rice Based Products				
- Building		988,069.24		
- Plant,machinery and equipment		0.00		
Equipment		272,374.04		
Furniture and Fittings		550,082.34		
Electricity & Fittings		62,605.30		
Library Books		60,801.00		
Computers		212,602.00		
Telephone & Fittings		37,561.77		
Vehicles		2,988,765.00		
Farm		0.00		
		<u>8,939,931.57</u>		

15 Note - That plastic crates given to farmers traders and collectors at 50% subsidy for promote packaging methods to transportation reduction to Post Harvest Losses in Fruits and Vegetables That stock not yet given to them
Plastic crate stock 2012.12.31 at Cost

4,265,878.40

16 Note

- 16.1 Following deductions have been made when computing the operational profit
Gratuity
16.2 E.P.F. - Employee Contributes 10% Employer Contributes 12%
16.3 E.T.F. Employer Contributes 3%

17 Note

Payment of income tax has not been included in cash payment However with holding tax has been deducted from the interest received on fixed deposits and savings. We have submitted income tax reports to the in Land Revenue.

18 Assets transferred from the Paddy Marketing Board to the I.P.H.T. on 25 th October 2006. However, the Accounts shown in book values of the P.M.B. transferred Assets . The transferred Assets are being revalued

19 One of our building Contractors Ms K.D Ebert & Sons Holding (pvt) Limited have signed two agreements to contract building at Anuradhapura office They have done some extra work un authored the agreement. After stopping payment for the un authored extra work. They have sent two letter of demand on 28 th November 2006 demanding to pay Rs 30,806,979.10 . One being Rs 5,329,344.62 as payment of extra work and the other Rs 5,477,634.48. Total payment 10,806,979.10 and their loss and damages Rs 20,000,000.00 the total amount Rs 30,806,979.10 requesting to pay whiting 14 days if not action will be taken But we have not responded the request neither they have not filed action against us according to the letter of demand

20 The initiate Capitals of the INSTITUTE OF POST HARVEST TECHNOLOGY shown Rs 500,000,000.00

21 The institute has received from the treasury on capital expenditure from 2000 to 2012 Rs. 30,509,250.00

Note		Balance as at 31.12. 2012 Rs.	Balance as at 31.12. 2011 Rs.
22 Investment	Note		
Deposits			
National Saving Bank 2- 0001- 17-99606 -Kollupitiya		10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99568 -Kollupitiya		10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99541 -Kollupitiya		10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99592 -Kollupitiya		0.00	8,000,000.00
National Saving Bank 2- 0001- 17-99584 -Kollupitiya		2,000,000.00	2,000,000.00
National Saving Bank 2- 0001- 17-99550 -Kollupitiya		10,000,000.00	10,000,000.00
National Saving Bank 2- 0001- 17-99576 -Kollupitiya		2,748,000.00	2,748,000.00
National Saving Bank 2- 0001- 15-77794 -Kollupitiya		10,000,000.00	10,000,000.00
		54,748,000.00	62,748,000.00
Other Non - Current Assets			
Workers Loan		5,340,969.09	5,708,662.60
Workers Loan -Special		463,500.00	495,000.00
Flood Loan		245,620.95	1,271,679.01
Work in Progress - Office Building		1,706,627.06	
		7,756,717.10	7,475,341.61
Total Non - Current Assets		62,504,717.10	70,223,341.61
Balance as at 1.1.2012		70,223,341.61	69,988,108.84
Less : Balance as at 31.12.2012		62,504,717.10	70,223,341.61
Increase / Decrease Non Current Assets		7,718,624.51	(235,232.77)
23 Current Assets			
Stocks	23.1	2,984,342.27	2,498,760.55
Advances	23.2	716,137.80	1,324,273.49
Deposits	23.3	22,708.75	22,708.75
Debtors Control Account	23.4	1,367,329.98	8,552,492.08
Accrued Income	23.5	3,317,367.47	2,765,786.92
Savings	23.6	4,298,587.25	25,133,497.77
		12,706,473.52	40,297,519.56
Balance as at 1.1.2012		40,297,519.56	28,252,063.37
Less : Balance as at 31.12.2012		12,706,473.52	40,297,519.56
Increase / Decrease Current Assets		27,591,046.04	(12,045,456.19)
23.1 Current Assets			
Stocks			
Noodles		349,486.74	837,829.35
Rice Mill -Rice		45,892.10	4,932.00
- Paddy		0.00	0.00
Broken & other		2,758.00	3,418.00
Stores -Paddy		324,892.52	29,615.12
Research projects		155,200.00	
Machinery - Raw material		13,658.27	118,369.92
Machinery		1,062,075.00	377,375.00
Diesel - Factory		111,434.48	194,786.16
- Generator		34,941.00	34,941.00
Research projects			13,489.84
Packing material - Noodles		884,004.16	884,004.16
Packing material - Rice			
		2,984,342.27	2,498,760.55

Note	Balance as at 31.12. 2012 Rs.	Note	Balance as at 31.12. 2011 Rs.
23.2 Advances			
Festival	147,094.03		142,094.03
Traveling	242,497.01		290,404.11
Half monthly	150.00		150.00
Interring Advance -General R&D	255,678.16		389,094.75
Interring Advance -General - Head Office	70,718.60		102,530.60
Suspense Account General - Head Office	0.00		400,000.00
	<u>716,137.80</u>		<u>1,324,273.49</u>
23.3 Deposits			
Services	675.00		675.00
Other	22,033.75		22,033.75
	<u>22,708.75</u>		<u>22,708.75</u>
23.4 Debtors Control Account			
Rice	100,183.75		100,183.75
By-product	6,069.50		6,069.50
Others	1,198,734.99		1,168,013.80
Sale -stole	1,219.00		1,219.00
Agriculture Ministry	61,122.74		7,202,794.93
World food program	0.00		67,565.10
Govibara fund	0.00		6,646.00
	<u>1,367,329.98</u>		<u>8,552,492.08</u>
23.5 Accrued Income			
Geranial	3,237,072.10		2,685,491.55
Regional Economic Advancement Project 1 -Matale	49,354.70		49,354.70
Sri Lanka Council forAgricultural Research Policy	30,940.67		30,940.67
	<u>3,317,367.47</u>		<u>2,765,786.92</u>
23.6 Savings			
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	2,365,849.99		2,250,368.82
National Saving Bank 1- 0001- 07-32087-Kollupitiya	1,932,737.26		22,883,128.95
	<u>4,298,587.25</u>		<u>25,133,497.77</u>
24 Current Liabilities			
Advances	24.1 520,086.00		476,353.77
Accrued Expenses	24.2 5,291,643.44		4,556,921.64
Deposits	24.3 454,439.00		487,439.00
Retention	24.4 2,953,395.09		4,105,040.83
Creditors Control Account	24.5 15,353,975.94		37,845,629.00
Gratuity fund	24.6 13,734,660.35		12,418,347.00
	<u>38,308,199.82</u>		<u>59,889,731.24</u>
Balance as at 1.1.2012	59,889,731.24		42,769,437.25
Less : Balance as at 31.12.2012	38,308,199.82		59,889,731.24
Increase / Decrease Liabilities	<u>(21,581,531.42)</u>		<u>17,120,293.99</u>
24.1 Advances			
Suspense Account Salary	2,819.58		2,819.58
Suspense Account - General	491,619.42		448,387.19
Special Salary	25,647.00		25,147.00
	<u>520,086.00</u>		<u>476,353.77</u>

Note	Balance as at 31.12. 2012 Rs.	Note	Balance as at 31.12. 2011 Rs.
24.2 Accrued Expenses			
Accrued Tax for Interest	188,130.75		120,003.64
Accrued Expenses - R & D	5,080,992.55		4,332,017.64
Accrued Expenses - Head office	22,390.14		104,770.36
Head Office creditor	130.00		130.00
	5,291,643.44		4,556,921.64
24.3 Deposits			
Contract Supplies	5,665.00		5,665.00
Tender - R&D	168,920.00		201,920.00
Tender - Head Office	279,854.00		279,854.00
	454,439.00		487,439.00
24.4 Retention			
Contract Works	2,425,079.71		2,214,906.22
Unpaid - salary	248,476.01		212,987.64
Unpaid - salary - Head office	200.00		200.00
Unpaid - wages	16,067.57		16,067.57
Cancelled cherubs	124,299.80		1,521,607.40
Regional Economic Advancement Project 2 -Matale	139,272.00		139,272.00
	2,953,395.09		4,105,040.83
24.5 Creditors Control Account			
Other creditors	328,295.00		677,760.00
Plastic crates-Fund	12,675,600.00		36,772,290.00
Paboling Vasals-Fund	2,350,080.94		395,579.00
	15,353,975.94		37,845,629.00
24.6 Gratuity fund	13,734,660.35		12,418,347.00
	Rs.		Rs.
Note			
25 Cash & Cash equivalents at the beginning of period			
Cash at Bank			
Bank of Ceylon - Torinton	789,487.44		6,233,983.06
People's Bank -Anuradhapura	121,516.19		1,605,291.05
Patty Cash	5,000.00		5,000.00
Cash & Cash equivalents as at 31.12.2011	916,003.63		7,844,274.11
26 Cash & Cash equivalents at the ending of period			
Cash at Bank			
Bank of Ceylon - Torinton	4,703,885.18		789,487.44
People's Bank -Anuradhapura	182,384.42		121,516.19
Patty Cash	5,000.00		5,000.00
Cash & Cash equivalents as at 31.12.2012	4,891,269.60		916,003.63

Audit Committee Report - 2012

The Audit Committee in the Institute of Post-Harvest Technology comprises of the following officers.

Mrs. Sumana Yapa, member - Board of Directors - Institute of Post-Harvest Technology,
Director, National Budget Department, General Treasury - Audit Committee Chairman

Mr. Gunaratne Gallege, Attorney-at-law - Vice Chairman, Institute of Post-Harvest Technology

Dr. (Mrs.) B.M.K.S. Thilakaratne - Acting Director, Institute of Post-Harvest Technology

Mr. R.K.A.P. Ramanayaka - Acting Director (Admin & Finance), Institute of Post-Harvest
Technology

Mr. R.M.D. Ratnayake - Internal Auditor, Institute of Post-Harvest Technology - Organizer of
Audit Committee

Three audit meetings were held in the following dates within year 2012.

08 May 2012

27 September 2012

04 December 2012

Officials from the Department of Auditor General and the Chief Internal Auditor of the Ministry of Agriculture were participated in these meeting as observers.

The accounting system, the management and the performance related weakness found in the Internal Audit Unit of this institute, Internal Audit Division of the Ministry of Agriculture and the institutions reported by the Auditor General were fully discussed and reviewed in the above meetings. The Committee took steps to draw the attention of the relevant officers to refer the suggestions and recommendations on the actions to be taken for rectifying the weakness indicated, assessment of the progress regarding the implementation of such suggestions and recommendations through a follow up action, and thereby to reduce the weakness existing.

In particular, a continuous review was done by the said committee to avoid the weakness existing in both administration and accounting system in this institute. The committee took action to present and provide necessary recommendations and guidances to the governing body of this institute for the development of these systems and making new policies.

- Performance 2012 and internal audit programme 2013 of the internal audit division
- Planning capital expenditure and implementing procurement plan in an efficient way
- Collection of training course income
- Obtaining possession of the premises in which the institute operates
- Vehicle management
- Regularise residential matters as an income generating activity
- Establishing an information system for the beneficiaries of the development projects
- Recruitment and training
- Fix assets management and under utility assets
- Writing off the long standing balances from the account
- Regularize the field centred administration

On behalf of the audit committee.

Signed:

Sumana Yapa

Chairman

Audit Committee

Institute of Post-Harvest Technology

Colombo

31.12.2013

The Chairman
Institute of Post-Harvest Technology

Report of the Auditor General on the Financial Statements of the Institute of Post-Harvest Technology for the year ended 31 December 2012 in terms of Section 14(2)(c) of the Finance Act, No. 38 of 1971.

The audit of financial statements of the Institute of Post-Harvest Technology for the year ended 31 December 2012 comprising the balance sheet as at 31 December 2012 and the income statement, 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. 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 furnished to the Chairman of the Institute on 23 October 2013.

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 Generally Accepted Accounting Principles 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

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. 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 judgements, 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 qualified audit opinion.

1:4 Basis for Qualified Audit Opinion

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



2. Financial Statements

2:1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2:2 of this report, the financial statements give a true and fair view of the financial position of the Institute of Post-Harvest Technology as at 31 December 2012 and its financial performance and its cash flows for the year then ended in accordance with Generally Accepted Accounting Principles.

2:2 Comments on Financial Statements

2:2:1 Best Accounting Practices

Eight items of fixed assets costing Rs.51,420,673 fully depreciated but used during the year under review had not been revalued and such value shown in the financial statements.

2:2:2 Accounting Policies

Even though the normal accounting policy of the Institute is for accounting on the basis of accrual policy, income from training courses, hostel charges and consultancy services had been brought to account on the cash basis.

2:2:3 Accounting Deficiencies

The following accounting deficiencies were observed.

- (a) Auditorium income amounting to Rs.23,000 and hostel income amounting to Rs.5,450 receivable in respect of the year under review had been omitted in the accounts.

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- (b) The sum of Rs.207,200 paid in the year under review on the agreement for the repair of laboratory equipment in respect of the year 2013 had not been shown as prepayments. As such the prepayments had been understated and the annual expenditure had been overstated by that amount.
- (c) Sums totalling Rs.24,230 receivable in respect of the year under review in connection with the supply of consultancy services for the rice flour noodles factory proposed for construction by the Local Foods Promotion Board and for a Rice Processing Centre of a private company had been omitted in the financial statements and as such the Consultancy Services Income Account and the Debtors Account had been understated by that amount.
- (d) Equipment valued at Rs.137,290 purchased for research projects had not been capitalized and shown under fixed assets and due to non-capitalization of those assets the annual depreciation and the deficit for the year under review had been understated by a sum of Rs.13,729.
- (e) According to the Bank Statements the Bank Debit Tax and Bank charges totalled Rs.35,787 while that had been shown as Rs.32,307 in the financial statements. As such that account and the deficit for the year had been understated by an amount of Rs.3,480.
- (f) The rates paid on the land of the Institute for the years 2006 to 2011 amounting to Rs.161,007 had been brought to account as expenditure for the year instead of being adjusted to the Accumulated Fund.
- (g) A sum of Rs.116,990 paid for the construction of a grill fence on the front boundary wall had been brought to account under the recurrent expenditure as maintenance expenditure on buildings and lands instead of being brought to account under fixed assets.
- (h) Action had not been taken to identify and settle 19 deposits totalling Rs.462,377 credited to the Bank Account of the Institute as direct remittances from September to December of the year under review.

2:2:4 Accounts Receivable and Payable

The following observations are made.

- (a) Even though the travelling advances amounting to Rs.211,479 paid to the officers in service at present had not been settled over a period exceeding 02 years, action had not been taken even during the year under review to recover the money from the officers concerned.
- (b) All assets and liabilities of the Paddy Marketing Board as at 30 June 2000 had been legally transferred to the Institute of Post-Harvest Technology in the year 2006. Action had not been taken even up to 24 June 2013 either for the settlement or write off from books 12 balances of accounts receivable amounting to Rs.2,513,330 and 11 balances of accounts payable amounting to Rs.1,138,123 remaining over a long period.
- (c) Effective courses of action had not been taken for the recovery of 11 balances of accounts receivable amounting to Rs.490,893 and for the settlement of 21 balances of accounts payable amounting to Rs.488,890 created after 30 June 2000 and remaining over periods exceeding 02 years up to 10 years and shown in the financial statements for the year under review.
- (d) Action had not been taken for obtaining reimbursements promptly of the expenditure incurred on the development projects implemented during the year under review and as such a sum of Rs.61,123 remained receivable as at the end of the year under review from the Ministry of Agriculture.

2:2:5 Lack of Evidence for Audit

The evidence indicated against the following items of account shown in the financial statements had not been furnished to audit.

Items	Value	Evidence not furnished
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	Rs.	
(a) Fixed Assets	89,795,633	Register of Fixed Assets



(b) Debtors Control Account	1,367,330	(i) Register of Debtors (ii) Confirmation of Debtors Balances
(c) Other Creditors	328,295	(i) Register of Creditors (ii) Confirmation of Creditors Balances
(d) Printing Expenses of Publications	177,250	(i) Schedules on the Issue of Publications (ii) Schedule of Closing Stock
(d) Library Books	295,361	Register of Accession
(e) Current Liabilities		

Advances	520,086	
Bid Deposits, Head		- Detailed Schedules
Office Retentions	279,854	

2:2.6 Non-compliance with Laws, Rules, Regulations and Management Decisions

The following non-compliances were observed

Reference to Laws, Rules, Regulations, etc.	Non-compliance
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(a) Financial Regulations of the Democratic Socialist Republic of Sri Lanka	

Financial Regulation 104	A loss of Rs.183,255 had been incurred due to accidents caused in two instances to 02 motor vehicles of the Institute. Action in terms of the Financial Regulation had not been taken in that connection.

(b) Public Administration Circulars

Public Administration Circulars
No. 26/92 of 19 August 1992 and
No. 26/92(1) of 03 August 1994
and No. 2002/01 of 25 February
2002

The State Emblem or the name of the Institute had not been painted on 07 pool motor vehicles of the Institute in running condition.

(c) Treasury Circulars

Treasury Circular No.
1A/2002/02 of 28 November
2002

Even though a Register of Fixed Assets on Computer Accessories and Software should be maintained, a Register of Fixed Assets had not been maintained for computers and accessories costing Rs.5,689,901.

2:2:7 Transactions not supported by Adequate Authority

The following observations are made.

- (a) In terms of the Public Administration Circular No. 13/2008(ii) of 09 February 2011, the official requirements of officers entitled to official motor vehicles should be managed within the number of litres of fuel allowed per month. When additional provision for fuel is needed the approval for that should be obtained from the Secretary to the Ministry. Even though the Chairman, Deputy Chairman and the Director of the Institute had obtained fuel valued at Rs.106,751, Rs.10,406 and Rs.45,156 respectively in excess of the limits, the approval for that had not been obtained from the Secretary to the Ministry.
- (b) The sum of Rs.400,000 paid as an advance to the Sri Lanka Institute of Development Administration for the preparation of the Administration and Financial Regulations of the Institute including the Corporate Plan had been brought to account as an expenditure for the year without the approval of the Board of Directors despite the assignment remaining without being executed.

3. Financial Review

3:1 Financial Results

According to the financial statements presented, the operations of the Institute during the year ended 31 December 2012 had resulted a deficit of Rs.4,893,838 as compared with the corresponding deficit of Rs.7,480,881 for the preceding year, thus indicating an improvement of Rs.2,587,043 in the financial results.

3:2 Analytical Financial Review

The surplus after meeting the expenditure for the year from the sum of Rs.52,782,809 received from the General Treasury for the recurrent expenditure of the year under review and the self-generated income of Rs.20,917,075 was amounted to Rs.7,258,200. The corresponding surplus after meeting the expenditure from the sum of Rs.63,340,951 received from the General Treasury and the self-generated income of Rs. Rs.18,588,181 in the preceding year was amounted to Rs.5,716,309. The adjustment of a sum of Rs.12,023,745 comprising the provision for depreciation on fixed assets amounting to Rs.8,939,932 and the provision for employees gratuity amounting to Rs.3,083,813 written off against the income for the year under review had been the reason for the deficit for the year under review.

4. Operating Review

4:1 Performance

The following observations are made.

- (a) A stock of 5,181 packing materials of 04 categories valued at Rs.2,056,023 purchased over 06 years ago under the Programme for Popularizing the Use of Plastic Packing Materials for minimizing the damage caused to vegetables and fruit during transport remained without being distributed even up to the end of August 2013.

- (b) Seven mobile trade stalls purchased for Rs.437,500 for distribution among the beneficiaries under the development projects of the year 2012 at 50 per cent beneficiary contribution remained in the stores without being distributed even by 24 June 2013, the date of audit.
- (c) A sum of Rs.12,695,600 being received from the sale of plastic packing materials purchased from the provisions received from the Ministry under the Programme for Popularizing the Use of Plastic Packing Materials for Minimizing the Damage caused to Vegetables and Fruit during transport had been retained idle in the stores of the Institute without being utilized for popularizing the programme.
- (d) The beneficiary contribution amounting to Rs.2,442,895 recovered from the Project for the Supply of Equipment on 50 per cent beneficiary contribution under the "Api Wawamu Rata Nagamu" national movement had been retained by the Institute without being utilized for that programme or for the commencement of a new project.

4:1:1 Research Performance

The following observations are made.

- (a) The evidence in support of the proper direction of the technical evaluation of research proposals, granting approval for implementation, analysis of quarterly progress, progress review and the evaluation of final reports by the Sri Lanka Council for Agricultural Research Policy had not been furnished to audit.
- (b) Even though the major objectives of the Institute included the use of modern technology, the popularizing of improved technology among the targeted groups, and the introduction of efficient goods transport systems and the introduction of packaging technology, effective courses of action had not been taken for the extension of the machinery and products manufactured at a cost of Rs.658,890 from researches during the years 2011 and 2012 in the relevant sectors.
- (c) Action had not been taken to record the machinery manufactured by the Institute at heavy costs from researches conducted over number of years in the stock books of the Institute and secure the rights of invention by obtaining patent rights and to ensure the viability of the machinery. Action had not been taken for the introduction of machinery or the technology produced through research to the market. Twenty one machines produced by the Institute since the year 2002 had been piled up in the Institute without identifying their costs.

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- (d) A Research Symposium had been held in the year 2012 with the objective of launching the technologies developed by the Institute through the researches conducted in the years 2009/2010. Even though 23 researches had been launched through the above symposium, no adequate steps had been taken even up to 21 June 2013 for the introduction of those researches to the Sector. Adequate courses of action had also not been taken for the achievement of one of the objectives of the Institute of popularizing improved technology among targeted groups.

4:2 Management Inefficiencies

Adequate courses of action had not been taken for the recovery of money for the 50 plastic crates valued at Rs.15,000 provided to the Ministry of Agriculture for the transport of seedlings for the Farmers' Week Exhibition 2010 held at the Bataatha Agri Technology Park or for the recovery of the plastic crates.

4:3 Irregular Transactions

The Kubota hand tractor appearing in the registers relating to the transfer of the assets of the Paddy Marketing Board as at 30 June 2000 to the Institute of Post-Harvest Technology and shown in the financial statements at a cost of Rs.11,450 was not physically available with the Institute.

4.4 Idle and Underutilised Assets

Even though 06 motor vehicles valued at Rs.942,907 belonging to the Institute had been lying idle over periods ranging from 03 to 10 years, action had not been taken for the disposal of those motor vehicles.



4:5 Uneconomic Transactions

The following observations are made.

- (a) The Institute had paid a sum of Rs.53,985 on 15 September 2012 as interest for the non-payment of the taxes payable on the land belonging to the Institute in respect of the years 2006 to 2012.
- (b) A sum of Rs.47,262 had been paid for insurance premiums and revenue licences in respect of the year under review for 04 unroadworthy motor vehicles of the Institute of Post-Harvest Technology, in disposable condition.

4:6 Resources of the Institute Supplied to other Government Institutions

Contrary to Section 9.4 of the Public Enterprises Circular No. PED/12 of 02 June 2003, three officers of the Institute of Post-Harvest Technology had been attached to the Minister's Office of the Ministry of Agriculture. The approval of the Cabinet of Ministers had not been obtained in this connection and the Institute had paid a sum of Rs.772,846 as the salaries and wages of the 03 officers for the year 2012.

4:7 Staff Administration

The staff as at 31 December 2012 had been as follows.

	Approved	Actual	Vacancies
Staff Grades	41	23	18
Non-staff Grades	51	24	27
Minor Grades	61	29	32
Total	153	76	77

Action had not been taken to fill the vacancies existing over a long period.

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4:8 Motor Vehicles Utilization

A motor vehicle of the Institute had been attached to the Ministry of Agriculture on temporary basis with effect from 01 August 2011 and the Institute had repaired the motor vehicle at a cost of Rs.100,186 in the year 2012. It was observed that the motor vehicle had not been taken back by the Institute even by 21 June 2013, the date of audit.

4:9 Annual Board of Survey

Action in terms of Financial Regulation 772 had not been taken for the disposal of 332 items of goods comprising 41 items for repair, twenty one items for sale and 270 items for disposal as identified by the Annual Board of Survey for the year 2012.

05. Accountability and Good Governance
-----Action Plan

Even though the Annual Action Plan had been presented, the physical targets had not been included in the Action Plan. As such it was not possible to examine whether the actual physical levels commensurate with the financial targets achieved had been reached. Similarly the Institute had not introduced a methodology for the timely examination of the targets achieved.

5:2 Internal Audit

Even though reports had been issued by implementing the internal audit covering different areas of the Institute, the Management had not taken adequate courses of action on those reports. As such it was observed that the Internal Audit had not been made use of as an effective instrument of control.

5:3 Budgetary Control

- (a) Variances ranging from 28 per cent to 267 per cent were observed between the budget and the actuals and as such the budget had not been made use of as an effective instrument of financial control.
- (b) Even though the approval of the Board of Directors should be obtained for the transfer of savings of provisions of a particular Object to another Object, expenditure relating to the year 2012 amounting to Rs.6,390,118 had been incurred by transferring the savings under Objects to 14 Objects without the proper approval.

5:4 Tabling of Annual Reports

The Annual Reports for the years 2008 and 2009 had been tabled in Parliament on 07 June 2002 and the Annual Report for the year 2010 had been submitted to Parliament on 26 February 2013 for tabling. Action had not been taken for tabling the annual report for the year 2011.

6. Systems and Controls

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.

- (a) Fixed Assets Control
- (b) Accounting
- (c) Staff Control
- (d) Budgetary Control
- (e) Implementation of Research Projects
- (f) Motor Vehicles Control

H.A.S. Samaraweera
Auditor General

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