

INSTITUTE OF POST HARVEST TECHNOLOGY

ANNUAL REPORT 2011

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

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

Message from the Chairman

Sri Lanka having an agriculture based economy, agriculture and the post harvest sector have become a major priority area at present. Although that Sri Lanka reported to have comparatively higher agriculture productivity with other Asian countries, the post harvest loss of fruits and vegetables is 30-40% and it is 10-15% in grains and pluses. This loss coupled with high cost of production has lead to higher market prices of the agricultural commodities. Therefore, recently the government too gave priority to minimize the post harvest loss of agricultural crops.

The institute of post harvest Technology (IPHT), established in year 2000, carries the aim of minimizing the post harvest loss and improving the quality of agriculture produce. In order to achieve these objectives, the IPHT had conducted many vital research projects, training & extension activities, development programmes, consultancy and other relevant services in the year 2011 as well. All these activities were carried out in order for the betterment of the post harvest sector. As a result a remarkable trend had been created towards using appropriate post harvest technologies. In future, the IPHT expects to expand and extend its services more effectively to a larger extent of the agricultural food production in Sri Lanka and the benefit will flow to the general public of the country.



Chairman

Institute of Post Harvest Technology

Message from the Director

Agriculture being a main priority sector in Sri Lanka, The Institute of Post Harvest Technology (IPHT) has a major role to play in minimizing the post harvest losses of durable and perishable crop produce. Maintaining the quality and nutritional components, value addition and food processing are also being considered at present. The IPHT had taken these main objectives as its goal and had oriented its research and development activities towards achieving that. Most of these activities were based on current issues and priority areas of the agriculture sector.

The IPHT activities were directed towards the uplifting of the post harvest sector in the year 2011 as well. Some of these activities had been minimizing losses in fruits by extending the shelf life by developing edible fruit waxes, control of post harvest diseases using GRAS chemicals, improving and updating the technologies used in the durable and perishable industry, assessment of present statuses of the post harvest sector specially in grain processing and fruit and vegetable handling and transportation.

Effective technology dissemination was another area that IPHT concerns on. Under this the IPHT had carried out several successful development projects and other disseminating activities. The rural farmers, farm women, unemployed and other stake holders were directly benefited through these activities.

Further the IPHT expects to expand its human resources and infrastructure facilities in the future to extend an effective service to the stake holders in an efficient manner. Thus with the necessary facilities being provided the IPHT hope to make its fullest contribution to the development of the post harvest sector of the country leading to the betterment of the Sri Lankan community.



Dr. B.M.K.S. Thilakarathne

Director

Institute of Post Harvest Technology

Institute of Post Harvest Technology
G-22 Ministry of Agriculture,
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31 - 03 -2012

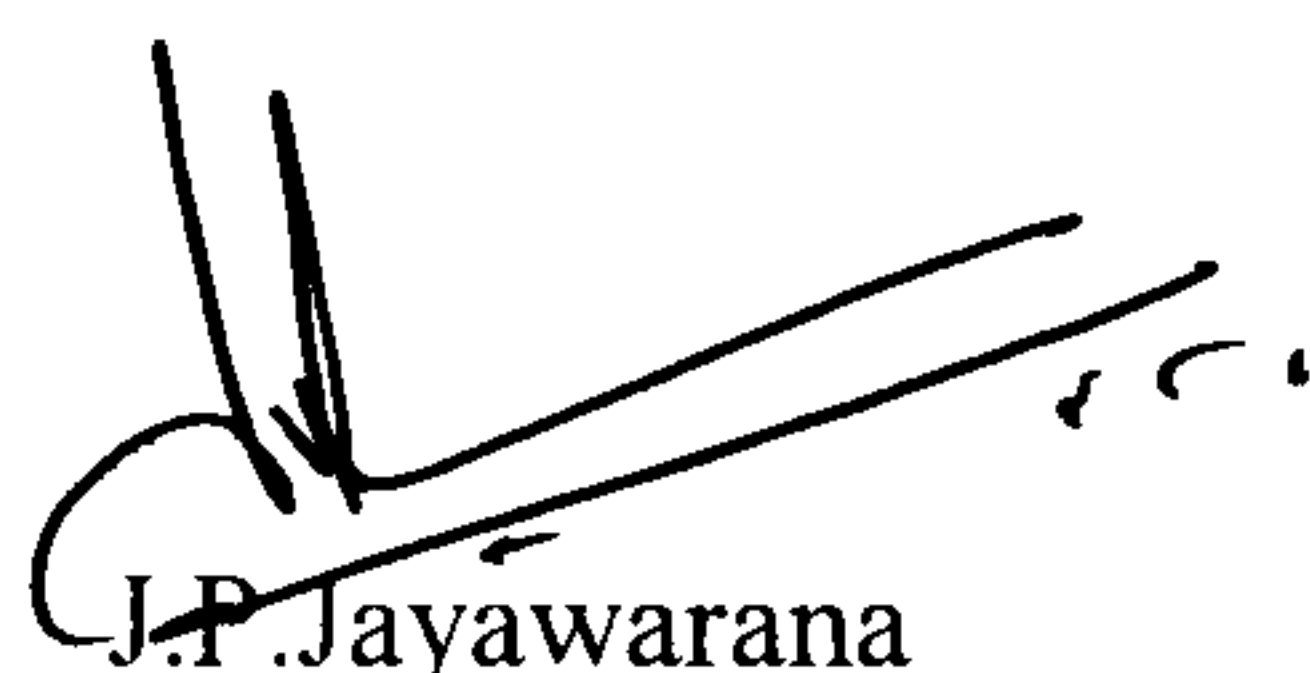
Hon. Minister of Agriculture
Ministry of Agriculture,
Govjanamandiraya,
Battaramulla.

Hon. Minister,

ANNUAL REPORT – 2011

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 2011.

Yours faithfully,



J.P. Jayawarana
Chairman
Institute of Post Harvest Technology

INSTITUTE OF POST HARVEST TECHNOLOGY
BOARD OF DIRECTORS

Name	Position	Attendance
Mr.Jagath Palitha Jayawarne	Chairman	07 days
Lawyer Gunarathne Gallage	Vice Chairman	07days
Dr. D.B.T.Wijeratne	Director	06 days
Mr.Palitha Godagamage	Director	07 days
Mr. Ananda Abewickrama	Director	07 days
Mr.N.P.Sameera Hettiarachchi	Director	07 days
Mrs.Sumana Yapa	Director	07 days

The meeting were convened in the year on the following days 11.01 2011,
05.04.2011,24.06 2011,11.08.2011,14.10.2011,24.11.2011,31.12.2011

AUDIT AND MANAGEMENT COMMITTEE

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

The meeting were convened in the year on the following days:25.05.2011, 06.10 2011
22.12.2011.

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 - 2011

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.

A brief account of IPHT activities.

Research activities

According to the research programme for 2011, 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 2011, seventeen research projects(17) were initiated and eighteen(18) research projects were continued from year 2010. 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 2010 and carried out during 1 st quarter of the year (up to 31 st March 2011) and completed.

- a) Design and development of a suitable package for leeks transportation
- b) Design and development of packaging system for banana
- c) Development of a methodology for extending the shelf life of lime as fresh produce
- d) Development of edible wax formulation for citrus fruits
- e) Development of an appropriate methodology for extending the post harvest life of cassava
- f) Development of fruit vinegar and vinegar beverage using fruit wastes
- g) Evaluation of physical, chemical, eating and cooking qualities of recently recommended and traditional rice varieties in Sri Lanka
- h) Comparison of nutritional cooking and eating qualities of parboiled and partially parboiled rice ("Country rice"/"bada bath")
- i) Effect of soaking water on quality of parboiled rice
- j) Screening of currently available insecticides in Sri Lanka for their efficacy and toxicity against insects for stored paddy
- k) Development of a rice based frozen dessert(rice ice-cream)
- l) Performance evaluation of available threshers for shelling of maize.
- m) Improvement of an existing post harvest practices of big onion to improve the product quality and storage life
- n) Introduction of medium scale process line for manufacturing noodles from finger millet
- o) Development of a pepper de-stoning machine
- p) Design and development of dryer for nutmeg
- q) Evaluation of different types of spice grinding machinery for their performance

for different types of spice product

r) Development of medium scale waste water treatment plant for parboiled rice

Approved projects for the year 2011

- a) Assessment of rice processing village programme
- b) Development of an energy efficient particle grader for rice flour industry
- c) Development of a small scale paddy dryer
- d) On the role of pre-gelatinization in the quality improvement of rice flour
- e) Process improvement of paddy parboiling in rice milling industry
- f) Formulation of edible fruit wax for commercial use
- g) Study of the use GRAS compounds 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 Drumsticks (*Moringa Oleifera*) leaves based nutria-mix and a bread spread
- k) Development of novel rice based snacks
- l) Value addition of under utilized fruits through the development of novel ready to serve fruit products
- n) Design and development of packing system for banana
- m) Improvement of an existing post harvest practices of big onion to improve the product quality and storage life
- o) Introduction of medium scale process line for manufacturing noodles from finger millet
- p) Design and development for Nutmeg dryer
- q) Evaluation of physical, Milling, Cooking, Eating & Nutritive Qualities of some recently recommended & traditional rice varieties in Sri Lanka
- r) Modification of existing noodles process line (IPHT) to reduce the cost of production.

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, 17 students from the universities of Peradeniya and Wayamba, Sabaragamuwa, Rajarata and Open University completed their final year research projects successfully under the supervision of IPHT research staff.

Technology dissemination

During the year 2011 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) Introduction of the improved fruit and vegetables mobile retail stall
- b) Initiation of agro-processing enterprise (grain and spice) at rural level.
- c) Initiation of fruit based manufactures micro prices at rural level.

- d) Improvement of rice flour milling industry.
- e) Upgrading the facilities of selected medium and small scale rice mills operating in rice processing villages
- f) Awareness creations and conducting of the awareness training programmers on post harvest technology
- g) Development of on-farm indoor paddy storage facilities to increase the farmers' income.
- h) Initiation of rice products manufacturing micro enterprise at rural level

The Following projects were funded by IPHT funds.

- a) Model villages programme-2011
- b) Introduction of agro based micro- enterprises in rural area
- c) Awareness creation and conducting training programmes on post harvest technology
- d) Improvement of rice flour milling industry
- e) Mechanization of rice milling industry to enhance productivity of rice mills improve of locally produce rice
- f) Modification of processing line of noodles plant(IPHT) to produce noodles using rice flour
- g) Establishment of rice processing villages and improvement of rice flour mills in the Northern and eastern area of Sri Lanka(World food programme)

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 2011. During the year under report 65 residential training courses including study visits were conducted and 1029 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 2011. To ensure effective technology transfer activities to the large number of farmers collectors of fruits and vegetables and traders, nine (09) Field Centers were established at different district in island wide. Anuradhapura, Ampara, Polonnaruwa, Nuwara Eliya, Kandy, (Mayurapura) Hambantota, Galle, (Ambanpola) Kurunegala and Matara 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 Mayurapura 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 and Matara district by Matara field center. The extension activities of

Anuradhapura and Polonnaruwa districts were conducted through the Field Extension unit of the R&D centre, Anuradhapura and field extension activities of other districts including Vauniya, Mannar and Trincomallee were conducted by the extension division of the IPHT at Anuradhapura. During the period under review, 5239 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 111 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. 30 samples were analyzed under the period of review.

Publications

During the year 2011, the institute continued to publish extension leaflets and handouts, to publicize the activities and new technologies of the IPHT. In this context, 25333 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 16 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 2011 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 2011

2.1 Completed research projects

2.1.1 Post harvest technology of grains and cereals

2.1.1.a. Development of rice based frozen desserts (rice ice-cream / Rice cream)

Ice cream is a frozen dessert usually made from dairy products, such as milk and cream. Soy ice cream is the only alternative non-dairy frozen dessert available in Sri Lanka and it 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 as the major food grain with high nutritive value, this study was carried out to develop rice based frozen desserts with two different nutritional characteristics.

Results revealed that it is possible to use rice as major ingredient to produce highly acceptable soft ice cream with different nutritional and sensory characteristic. This novel product will afford a new way to deliver the health full benefits of rice to the people.

2.1.1.b. Development of medium scale waste water treatment plant for parboiled rice

Rice processing industry is the largest agro-based industry in the country turning more value of product than any other industry. Mainly two types of rice called raw and parboiled; famous among the local community. The rice milled from pre-treated paddy is known as parboiled rice. Parboiling is a hydro-thermal treatment followed by drying before milling for the production of parboiled grains. Nearly 70 percent of the paddy produced in Sri Lanka at present is parboiled. Two dominant wastages are released to environment in parboiled rice milling namely, soak water and paddy husks. For one metric ton of paddy, approximately 1.3 m³ of soaked water and 0.2 tons of paddy husk are released to environment and soaked water is discharged to the environment without being treated. Due to this, bad odour is prevailed in the vicinities of the mills. In addition, paddy husk and ash dumps are washed away with rain to the waterways. To minimize bad smell, millers are advised to change soaking water every 10-12 hours. Even though soaking water is changed every 12 hours time COD and BOD₅ levels of releasing water are higher than the values set by CEA. Therefore, sustainability of this industry relies addressing the waste streams in a productive manner. Therefore in this research cleaner production principle is adapted to minimize the waste generated by attacking the point of generation. Industrial Ecology concept is adapted by using by product (waste) of the process, paddy husk as a fuel initially to operate the boiler and later ash of the husk as filtering media of

wastewater. In addition, steam generated by burning paddy husk will be partly used to rotate biological rotating disk which facilitate aerobic reaction. Treatment process consists of two stages and in the first stage, BOD value is reduced by aerobic digestion with the help of rotating biological contractors (RBC) and in the second stage pre-treated wastewater sent through a carbon filter in order to reduce COD. Result shows that treatment process gives promising results of the COD and BOD₅ from 98 ml/l and 1676 ml/l up to 24ml/l and 241ml/l , respectively. Therefore treated water can be re-used for soaking purposes again.

2.1.1.c.Effect of Soaking Water Quality on Quality of Parboiled Rice quality

The market demand of the parboiled rice also depends on its other quality parameters such as kernel whiteness and hardness (texture). Even though many factors contributing in quality of parboiled rice, soaking water quality, procedures and steaming procedures impart effect on quality of parboiled rice. It can be observed, quality of parboiled rice varies from place to place, although parboiling treatments are similar. Water used for soaking is varies according to area in Sri Lanka. Underground water is the main water source used for soaking of paddy in parboiling most of rice mills in Sri Lanka. It was observed that lot of chemical such as CaCO_3 , Cl irons; NO_3 and Fluoride irons are soluble in ground water available in dry zone. Hence this research study mainly forces to evaluate, whether chemical water quality of soaking water affected for parboiled rice quality. Experiment was conducted using BG-358 rice variety.

The results shown that CaCO_3 concentration of the soaking water significantly affected only for changing of rice kernel whiteness (colour) in parboiled rice. CaCO_3 concentration in the soaking water was not significantly affected for changing of other rice quality parameters such as kernel hardness, broken grain percentage and head rice yield percentage. High CaCO_3 concentration show significant improvement (increased) in terms of kernel whiteness (colour), Chlorine iron concentration of the soaking water significantly affected only for changing of rice kernel hardness (texture) in parboiled rice and also it was not significantly affected for changing of other rice quality parameters such as kernel whiteness, broken grain percentage and head rice yield percentage. Chlorine iron concentration in soaking water was not shown any improvement pattern of rice kernel hardness/texture. However, combination effect of all chemical in ground water may be different its individual effect.

This research was identified, soaking water hardness can be caused for altering the rice kernel hardness therefore rice millers are advised to use hardness less than 400mg/l water such as surface water rather than ground water. As well as High Chlorine concentration in soaking water caused to changing rice kernel hardness/texture. Hence, rice millers are also advised to use chlorine iron free water for soaking

2.1.1.d.Evaluation of physical, Milling, Cooking, Eating & Nutritive Qualities of some recently recommended & traditional rice varieties in Sri Lanka

The physical properties, milling, nutritive, cooking and eating qualities of three traditional rice varieties (pokkali, pachchaperumal, Murungakayan) in Sri Lanka were evaluated in the laboratory of Institute of Post Harvest Technology, Jayanthi Mawatha, Anuradhapura with the aim of appraising rice breeders, millers and consumers on relative merits of different traditional rice varieties to improve the quality of rice, optimize rice processing operations and to provide information to consumers. Significant differences of lengths were noted among tested varieties. Murungakayan had the highest length of 8.93mm, whereas pokkali had the smallest kernel with a length of 7.40mm. Other physical properties such as true and bulk densities, porosity, and hardness varied significantly among tested varieties.

Significant varietal influence on total milling yield and head rice yield was observed. The total milling yield showed a perfectly negatively correlated to paddy husk content ($r = -0.9$). The Head Rice Yield showed a negative correlation ($r = -0.6$) with the length of the grains examined while Total Milling Yield showed a strong negative correlation ($r = +0.57$). A mild positive correlation ($r = 0.14$) was observed between grain hardness and the head rice yield (similarly a mild negative correlation ($r = 0.24$) exists between grain hardness and the broken %).

Pachchaperumal contained relatively high protein percentage (6.03%) than that of the Pokkali and Murungakayan and the least protein percentage was recorded in Murungakayan rice variety. The protein content shows a strong negative correlation ($r = -0.8$) to the fat content. The result obtained for fat content, three rice varieties ranged from

2.98 - 3.56% in brown rice and from 1.24 - 2.27% in polished rice. The fat contents were significantly varied ($\alpha = 0.05$) among tested varieties (in both brown and polished rice)

Cooking time varied from 15.33 to 19.06 minutes, which the highest from Murungakayan and lowest for Pokkali. Cooking time was observed to have a strong positive correlation with grain hardness ($r = 0.93$). Pokkali rice fell in to the category of intermediate gelatinization temperature rice (70-74 °C) while other two varieties (Murungakayan and Pachchaperumal) fell in to the category of high gelatinization temperature rice (75-79 °C). Pokkali showed the highest water uptake of 3.92g/g while Pachchaperumal cultivar showed the least value of 2.71g/g. the water uptake of three varieties varied significantly ($\alpha = 0.05$). There was a significant difference in elongation ratio ($\alpha = 0.05$) among tested varieties. The highest elongation ratio of 1.47 was recorded for Pokkali and lowest ratio of 1.34 was recorded for Murungakayan. In the present study, volume expansion ranged from 0.024 to 0.028 ml/g. Murungakayan showed the highest volume expansion while Pachchaperumal showed the least. All the traditional varieties examined fell in to the category of high amylase content (>25%). The Amylose content had a positive correlation with water uptake ($r = 0.57$). According to the results, Murungakayan had obtained the highest max viscosity (3100B.U) while Pachchaperumal had obtained the least (1730B.U).

The overall acceptability clearly showed that more consumer preference was for Pokkali variety and similar preferences were observed for Pachchaperumal and Murungakayan. The findings are given to Association of Seed growers at Homagama and "PARABOWA" Negambo .

2.1.1e. Screening of currently available insecticides in Sri Lanka for their efficacy & toxicity against insects for stored paddy

Storage losses in paddy alone have been estimated to be 4-6% and it had been estimated that 80% of this loss is due to insect attack. Out of several insect control measures, mostly contact insecticides have been used to control most common and major storage insects; *Rhyzopertha dominica* (Lesser grain borer) and *Sitophilus oryzae* (Rice Weevil).

Even though a wide range of contact insecticides is commercially available in Sri Lanka, Actellic (Active ingredient, Pirimi-phosmethyl) had been widely used and become popular among farm level as well as commercial level grain collectors till recently.

However, currently due to high cost and unavailability of this popular insecticide, problems have arisen to use that as an effective insecticide. So, in order to find an alternative effective insecticide, which can replace Actellic currently available and registered samples of insecticides were screened for their efficacy and toxicity against Rice Weevil *Sitophilus oryzae* L. (Coleoptera: Curculionidae) and Lesser grain borer *Rhyzopertha dominica* F. (Coleoptera: Bostrichidae) under laboratory conditions. Freshly emerged one week old adult insects of both species were kept on filter papers and recommended dosages of each insecticide were sprayed and mortality % of each species was recorded after three, eighteen and twenty four hours.

When consider toxicity levels, Solfac (*Cyfluthrin*), Tracer (*Spinosad*) & Actara (*Thiamethoxan*) showed higher results according to the descending order. However, comparison of mammalian toxicity (LD_{50}) of chemicals showed that Solfac (*Cyfluthrin*) falls into the category of highly hazardous insecticides and all the other insecticides fall into the moderately hazardous category Hence, insecticide Solfac (*Cyfluthrin*) can not be recommended as an insecticide for stored paddy since paddy are for human consumption. So, in selecting a suitable insecticide from those which performed favorably, when consider mammalian toxicity (LD_{50}), residue effectiveness as well as cost benefits, can recommend Tracer (*Spinosad*) & Actara (*Thiamethoxan*) as a suitable insecticide for application against insects of stored paddy. Findings are regularly transferred to the government and private sector store managers.

2.1.2 Post harvest technology of root and tubers

2.1.2.a. Development of an appropriate methodology for extending shelf life of Cassava

Fresh Cassava roots are highly perishable under ambient conditions, becoming unmarketable in 3 days or less. It has been reported that Cassava roots when stored at high relative humidity of around 80-90% and at temperature of 35°C can be kept fresh. Therefore, this study conducted with the objective of development of an appropriate methodology for extending shelf life of fresh Cassava and to evaluate the impact of storage condition on extending post harvest life.

It was revealed that, fresh Cassava which are free from mechanical damage, soil and other foreign materials and without external free moisture can be stored successfully in a box made of ply wood sheet (L x W x H : 75 x 60 x 60 cm) lined with Mc-foil while covering the roots alternatively by layers (15mm thick) of properly dried Guinea grass (*Panicum maximum*) for up to 21 days (temperature 35°C and RH (96-98%)) in contrast the same fresh cassava roots can only be kept less than 5 days when they are under ambient conditions (temperature 32°C and RH (71-77%)).

2.1.2.b. Improvement of an existing post harvest practices of big onion to improve the product quality and modification of IPHT big onion in-storage and curing structure to increase storage life of big onion

Big onion (*Allium cepa*) is one of the major vegetable crops, which is grown in Sri Lanka meanwhile this is one of the major important cash crops in the dry zone and the intermediate zone. The level of big onion production and prices shows an immense potential for increasing incomes of local farmers. Profit from big onion is greater than that of other major crops such as chilli and potato (Dept. Agriculture). Most of the Sri Lankan farmers do not practice proper post harvest operations. Hence, high qualitative and quantitative losses were occurred. And also big onion cultivation is seasonal in Sri Lanka, at present, proper storage methods for storing onion not available in Sri Lanka. Hence, high post harvest losses of big onion were also encountered at farm level at harvesting seasons. Therefore after 3 month from the cultivation, locally produced big onion was not available in the market due to unavailability of proper storage structure for big onion. Hence, this study was focused to introduce improved post harvest practices and curing and appropriate storage methods to extend the storage life of big onion.

Local big onion farmers were not followed improved post harvest practices that were caused shortened storage life of big onion. IPHT big onion in-storage curing structure was developed and introduced to field in order extend the shelf life of big onion more than 6 months and overcome problems during storage such as sprouting, rotting and desiccation. However, this structure failed use by farmers due to its operating problems such as paddy husk combustion for controlling of relative humidity and temperature..

New storage structure can be scaled up store 1 to 10 MT as requirement of the farmer or company. This has facility to control relative humidity and temperature as requirement of onion storage. Proper post harvest practices such as harvesting at correct stage of maturity, initial sorting, cutting of tops, drying, curing, neck sealing and re-sorting were not followed by local farmers due to lack of knowledge. Identified new post harvest techniques and knowledge were disseminating among local farmers and growers.

2.1.2.c..Study of soft rot in carrots and possible control measures

Carrot is an economically important vegetable crop and it has a high consumer demand world wide. However, soft rot in carrot caused by bacteria is one of the most serious postharvest diseases in Sri Lanka. It can cause severe loss especially during storage and transit. The use of synthetic pesticides is the primary means for controlling postharvest diseases. However, growing concerns over the drawbacks of the use of pesticides have generated an interest in the development of safer, eco-friendly alternative methods for the control of storage diseases. Today, a greater awareness is being focused on chemicals that are 'Generally Recommended As Safe' (GRAS) to control post harvest diseases, throughout the world since they are inexpensive, easily accepted by consumers, nontoxic, with minor environmental impact at the effective concentrations , and usually used in the food industry.

In this study, effect of GRAS compounds namely sodium bicarbonate and ammonium bicarbonate in different concentrations was evaluated (as a dip treatment) on bacterial growth. Effect of ammonium bicarbonate was more pronounced than that of sodium bicarbonate. Ammonium bicarbonate in 2% (wt/v) was effective in reducing soft rot up to 25% compare to the non-treated tubers. Consumer acceptability did not changed due to the treatment revealing the industrial applicability of the treatment..

2.1.3 Post harvest technology of spice crops

2.1.3.a.Evaluation of different types of spice grinding machinery for their performance for different types of spice product

The volatile oil, color, particle size distribution and cost of production are considered to define the quality of coarse pepper powder and fine pepper powder as these properties reflect the consumers' acceptance and therefore the market price.

The pin mill performed best as a single machine in terms of particle size of ground product among two types of pepper processing machinery. However, combination of plate mill gives little bit lesser cost of production.

Curry powders are consisted with different materials according to the recipe. Grinding was evaluated according to the tested recipe. For grinding evaluation of curry powder, main raw materials; coriander, cumin and sweet cumin were used in both types; roasted and unroasted according to the percentage in tested recipe. The method of grinding of curry powder was succeeded with the combination of plate mill and disk mill. Using the plate mill for the first pass and disk mill with 1000 micron for second and third pass was the best combination for processing of curry powder.

2.1.3.b. Development and evaluation of dried black pepper de-stoning Machine

A major problem faced by the pepper exporting industry in Sri Lanka is high percentage of inert matter contamination especially sand and stones. De-stoner is used for the removal of heavy foreign contaminants like stones. A study was conducted to test and evaluate suitability of rice de-stoning machine currently used in rice milling industry in Sri Lanka for dried pepper de-stoning. The deck inclination was kept at 13 degrees and air flow rate was kept at "FULL" level. The results show that the tested rice de-stoner has an average capacity of 355.50 kg/h; the average percentage of stone removed of the machine is 99.96 %; the average percentage of breakage berry of the machine is 0.5%; the power consumption per kilogram of dried pepper is 3.94×10^{-3} kWh/kg; the cost of production is LKR 0.64. Hence, this modified de-stoner can be used to remove sand and stones of dried pepper. The modification can be done through rice milling machine fabricators. The technology is disseminated by extension mechanism of Institute of Post Harvest Technology and also through consultancy and training. Apart from that, technology is disseminated to farmers through other governmental and non-governmental organization who are working on postharvest technology field of spices.

2.1.4 Post harvest technology of fruit and vegetables

2.1.4.a Development of a transportation package for banana

Banana is the most popular and cultivated fruit in Sri Lanka. But post harvest losses of banana are recorded nearly 30% due to improper post harvest handling practices. Absence of suitable packaging system for bulk transportation of banana is a major reason for above situation. Therefore, a study was conducted to design and develop bulk packaging technique for banana transportation suitable to Sri Lankan condition.

A questionnaire survey was conducted to evaluate present situation of banana supply chain and to identify suitable packaging system, with farmers, transporters and retailers. Physical properties of “Embul”, “Seeni” and “Kolikuttu” banana varieties related to design of packaging. Two packaging systems were tested using a simulated vibration bed similar to road transport conditions which were 6 mm amplitude and 5 Hz frequency. One method was rapping of banana bunches with styrofoam sheets of 2mm, 3mm and 5mm thicknesses and second method was spreading styrofoam sheets as layers of four difference thicknesses 3mm, 5mm, 8mm and 10mm.

People preferred to transport banana as whole bunches due easy retailing and transportation as hands in plastic containers was rejected by farmers due to excess handling, and transporters, retailers because ripening cannot be controlled. Wrapping of whole bunches by styroform sheets of 5 mm thickness recorded the minimum mechanical damages during the experiment and this method did not much effect on capacity compared to the prevailing system. When packaging cost and handling efficiency are considered, use of Styrofoam sheets of 8 mm as layers is the most suitable method for bulk transportation of banana.

2.1.4.b. Suitability of bulk packages for transportation of leeks (*Allium porum*)

Leek is an economically important vegetable which occupies a prominent position among vegetables grown in Sri Lanka. Due to variation in length of the crop, presently available packages are not suitable for leeks transportation and reported annual postharvest loss was 15.7%. Institute of Postharvest Technology has developed wooden bulk packages to transport leeks and this study evaluated the suitability of those packages for leek transportation.

Among the package models tested, 100cm x 45cm x 35 cm was showed better performances by reducing wilting %, physical damage and weight loss (%). Therefore the tested package will be the most suitable alternative for transportation of leek without removing majority of the leaf portion and reducing losses during transportation due to use of appropriate height and the length for stacking.

2.1.4.c Development of edible wax formulation to enhance the storage quality of Citrus fruits

Comparative effects of different concentrations of coatings bee wax, cassava starch, corn oil, coconut oil and sodium bicarbonate on improving the keeping quality of orange and its storage performance was evaluated. The physicochemical and physiological characters of fruits were evaluated for 10 days storage and the fruits treated with Bee wax 0.5%, cassava starch 2%, corn oil 1% and sodium bicarbonate 1% (T₁) exhibited better performances than other coating solutions tested. It extends storage life up to 10 days with appreciable retention of all quality parameters. That will be the advantage for producers as well as retailers to extend the market life of their produce as well protecting its quality. The treatment will be a good solution for shelf life extension of locally available cultivars.

2.1.4.d Development of a methodology for production of fruit vinegar using waste banana (var: 'Ambul')

In Sri Lanka, it has been estimated that approximately 390,000 tons of fruit and vegetables are lost during postharvest operations. Moreover 1 Mt of fruits and vegetable are dumped as garbage at Thabuththagama economic centre per day. Hence this research was undertaken with the objective of optimizing the usage of fruit wastes disposed by the Thambuththegama Economic Center and Anuradhapura market by developing fruit vinegar.

The use of peeled banana (Variety 'Ambul') was effective to develop 10-11% ethanol concentration, 7 days after first fermentation while addition of 20% mother culture facilitated the acceleration of vinegar production process. The results revealed that banana waste could be successfully used to prepare fruit vinegar and commercial coconut vinegar can be replaced by the developed banana vinegar.

The research findings will be benefitted for farmers who suffer from marketing problems during the glut season. Hence over-ripe banana could be used to prepare fruit vinegar, with good organoleptic properties. Hence the technology will be immensely benefited to value addition of over-ripe banana. The technology will be disseminated through the training and extension activities of the institute.

2.1.4.e. Development of Ready to Serve drink using Dragon fruit

Dragon fruit (*Hylocereus undatus*) is a climbing vine belongs to the cactus species. In Sri Lanka there are no prominent value added products of dragon fruit. As ready to serve (RTS) drink is one of the basic types of fruits beverages and can be produced by simple low cost technology, This study attempted to develop a RTS drink using dragon fruit. Preliminary investigations were carried out based on the Sri Lanka standards (SLS:1985) specified for RTS fruit drinks to develop a suitable recipe. Four recipes were prepared containing 8%, 10%, 12% and 14 pulp with 11% sugar and 0.01% sodium metabisulfite. Sensory evaluation was conducted using 25 untrained panelists to determine the best pulp concentration to develop the RTS. Then the recipe was further developed with the addition of four levels of citric acid (0.6%, 0.7%, 0.8% and 0.9% and 1% of carboxy methyl cellulose (CMC) and a sensory evaluation was carried out to determine the best level of citric acid to be added to develop the RTS. The selected product was packaged in a sealed glass bottles and stored under two storage conditions, ambient (27°C, 70% RH) and refrigeration

(5°C, 75% RH) for 3 months period and TSS, pH, acidity, Color and microbial counts were determined at two weeks intervals. Recipe with 12% fruit pulp and 0.8% citric acid was selected as the best recipe for the development of RTS dragon fruit drink. Storage data revealed that the product was compatible with the Sri Lanka Standard (SLS 729:1984). However, there was a slight increase in acidity and decrease in pH in samples, stored at ambient condition. Thus, it can be concluded that dragon fruit could be used to produce RTS drink and it can be kept for three months period under ambient and refrigerated conditions without quality deterioration.

The discarded fruits which have no market value (smaller sizes) are used to prepare RTS drinks. An Industry initiated at Moratuwa as “Lanka Juice”.

2.1.4.f. Development of a methodology for extending the shelf life of lime as fresh produce

We have noticed that fresh lime fruits in the most of the Sri Lankan markets are in poor quality, especially under dry weather conditions. Retail sellers will be able to overcome postharvest quality losses such as shrinkage and quick ripening with the storage under a medium.

Fresh Lime fruits can be stored under the Sand, Paddy husk or Coir dust media after the dipping in 2% Sodium Bicarbonate solution. Above media help to avoid shrinking of fruits while extending their shelf life at least 2-4 weeks without any quality deterioration. fruits can be stored for 2 weeks in Sand and 3-4 weeks in Paddy husk and Coir dust media.

Retail sellers able to sell a good quality produce and consumers can have a good quality fresh lime fruits from the market with the application of above research outcome.

2.2 Research projects published in 2011

Following research projects completed in 2010/11 were published in different sources of scientific journals as mentioned below.

a) International Journals

K.G.L.R. Jayathunge, H.U.K.C. Prasad, M.D. Fernando and K.B. Palipane. Prolonging the postharvest life of fresh papaya using modified atmosphere packaging. (2011). Journal of Agricultural Technology. Vol. 7(2): 507-518.

b) Local Journals

K.G.L.R. Jayathunge, B.M.K.S. Thilakarathne and M.D. Fernando. Formulation of ready to use "Ambulthial" spice mixture and study the acceptability of the product. (2011). Proceedings of the international Symposium of the Faculty of Agriculture, University of Ruhuna. p.54.

Senevirathne G.D., **Wijewardane, R.M.N.A.** and Jayawardana, N.W.I.A. (2011). Suitability of bulk packages for transportation of Leek (*Allium porum*) Proceedings of the Research Symposium 2011. University of Rajarata, Sri Lanka.

Rathnayake H.M.A.P., Kulathunga A.K., **Dissanayake, T.M.R.** (2010). Enhancing sustainability of the local rice mills by cleaner production and industrial ecological principals. Proceedings of the international conference on Sustainable built environment. Vol. 2: p.310-311.

Bandara, D.M.S.P., **Ratnayake, R.M.R.N.K.**, **Dissanayake, T.M.R.** (2011).

Performance evaluation of different types of spice grinding machinery for producing chilli powder. Transactions 2011, The institution of engineers, Sri Lanka

Ratnayake, R.M.R.N.K., Thilakarathne, B.M.K.S., Fernando, M.D. (2011). Effect of GRAS compounds on crown rot of “Embul” banana. SL. Journal of Agric. Sciences (Accepted to publish)

Gunathilake .,D.M.C.C.,Wasala.,W.M.C.B.,Thilakerathne.,B.M.K.S. and Wijerathne.,D.b.T.,(2011)Design and development of an improved mobile stall for retail selling of fruits and vegetables.3rd international symposium,faculty of Agriculture ,University of Ruhuna.

2.3 On going research projects

Recognition of research Projects for the year 2011

A meeting of research officers and mechanical engineers was carried out on 02.11.2010 for the recognition of research projects for 2011.It was proposed that a stake holders meeting should be carried out to receive their ideas. Accordingly a symposium was conducted on 06.12.2010 with the farmers, NGO personal, Agro traders, University lecturers, Research Officers from Department of Agriculture and Scientists from Government sector organizations dealing with postharvest Technology. Fifteen (15) research projects were proposed in the symposium.

In order to discuss about the proposals, a meeting was held with the participation of all IPHT research officers and mechanical Engineers on 06.01.2011. It was proposed that presentations of new research proposals should be carried out on 07.02.2011 in front of a Board of scientists. However, due to sudden floods on 04,05,06 th February 2011, the meeting was postponed without any date.

The presentations were rearranged on 11.03.2011 and the idea of board of scientists was the progress of research should be given once in every three (03) months. 14 numbers of research proposals were presented at the meeting and suggestion of changes were received for rearrangement of the proposals. Selected research projects were again presented in front of the National committee on Postharvest Technology of the Council for Agricultural research policies, for the national requirement and request for approval for carryout research projects on 11.04.2011.Twelve (12) projects out of 14 projects was evaluated and approved by the National committee on 17.05.2011. Accordingly following projects were commenced on 01.06.2011.

The members of national committee was

1. Dr.(Mrs.)Shanthi Wilson
2. Dr.(Mrs.)S Thilakerathne
3. Dr.K.H.Sarananda
4. Dr.Nimal Dharmasena
5. Dr.D.B.T.Wijerathne
6. Mr. D.A.Perera
7. Mr.I.V.D.C.S.Indiruwa
8. Dr.Ranjith Edirisinghe
9. Mr.Mohan Rathwathe
10. Dr.J.D.Samarasinghe
11. Mr. P.Wimal Kumara
12. Mr.Mahinda Sakalasuriya

Approved projects for the year 2011

- a) Assessment of rice processing village programme
- b) Development of an energy efficient particle grader for rice flour industry
- c) Development of a small scale paddy dryer
- d) On the role of pre-gelatinization in the quality improvement of rice flour
- e) Process improvement of paddy parboiling in rice milling industry
- f) Formulation of edible fruit wax for commercial use
- g) Study of the use GRAS compounds 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 oleifera*) leaves based nutria-mix and a bread spread
- k) Development of novel rice based snacks
- l) Value addition of under utilized fruits through the development of novel ready to serve fruit products
- n) Design and development of packing system for banana
- m) Improvement of an existing post harvest practices of big onion to improve the product quality and storage life
- o) Introduction of medium scale process line for manufacturing noodles from finger millet
- p) Design and development for Nutmeg dryer
- q) Evaluation of physical, Milling, Cooking, Eating & Nutritive Qualities of some recently recommended & traditional rice varieties in Sri Lanka
- r) Modification of existing noodles process line (IPHT) to reduce the cost of production

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

During the year 2011, 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

3. TECHNOLOGY TRANSFER

The development projects carried out by the IPHT during the year 2011 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 Initiation of agro-processing enterprise (grain and spice) in rural areas.

The Institute of Post Harvest Technology the successor to the Rice Processing Research and Development Centre, at Anuradhapura has implemented the Rice Flour Processing Technologies all over the country. The objectives of this project are to disseminate grain and spice processing facilities within the project area to increase target group house hold income levels and medium level entrepreneurs. The technologies that were selected for dissemination are cleaning, de-stoning, de-husking, splitting and grinding of grain and spices. During the period of four years of operation of the rice flour processing, considerable progress has been achieved. Therefore, production of high quality grain products such as black gram and green gram and spice products such as chilli powder, curry powder etc. may be the viable self employment micro-enterprise among the rural sector.

Another aspect of the post harvest system, which needs to be improved urgently, is development of rural agro-based industries. In recent times, due to an increase in the cost of agricultural inputs the returns to farmers from cultivation of these crops have become marginal. An effective way of alleviating this problem of low income from farming is to initiate agro-processing micro-enterprises at farm level. At present processing of these crops is carried out mainly in urban areas and the farmers market their produce in the unprocessed form.

Now it has been realized that if processing could be done by farmers themselves at rural level they could increase the market value of their produce and thereby significantly increase their incomes.

The objective of the project was to introduce identified appropriate agro-processing industries to the small / medium entrepreneurs, farmers and unemployed youth in the project area in order to increase their income levels through value addition to their produce. Thereby, we identified the prospective small/medium entrepreneurs, farmer groups, unemployed youth, who are willing to initiate agro-based industries, in consultation with extension division of IPHT in Anuradhapura district. And more than 120 people were trained in grain/spice processing technologies, production management and marketing. Out of that percentage, we provided 12 disk mill machineries on provision of 50% of the investment for initiation of agro industries to the entrepreneurs. And provided assistance to the entrepreneurs in installation and commissioning. At the moment all the beneficiaries are involving in machines installations and some of them are starting production. IPHT also provided necessary technical support to the beneficiaries who have needed. The follow up will be done by the extension service.

3.1.3 Initiation of fruit based micro-enterprises in rural areas.

Agro climate in Sri Lanka is suitable for a wide range of tropical subtropical and some temperate fruits which have a high market potential. However, due to improper supply chain and value chain activities, 30-40% of the harvest is lost at the postharvest stage. 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 six districts, namely, Anuradhapura, Polonnaruwa, Kurunegala, Hambanthota, Moneragala and Nuwara-Eliya. Training programmes were conducted and beneficiaries were selected to provide 3 pulpers and 2 dryers with 50% subsidy. However, manufacturer selected to supply 3 pulpers did not provide those in required quality, thus they were rejected. Two dryers were provided to the beneficiaries namely, Ms Renuka Geethanjalee, B Section-No.05, Konwewa, in Anuradhapura district and Mr.K.A.Abeysekera, No.05, Rathnagiriya, Lindula in Nuwara-Eliya district and they have initiated their own production and marketing with the trade names 'Jaya Isuru' and 'Sam products' respectively. And other beneficiary trained in this programme Mr. A.M.P Chinthana, Samagi Uyana, Anuradhapura has initiated a fruit based product manufacturing unit with the trade name 'Kings Food Products'. This project was conducted under 'Api wawamu-Rata Nagamu' programme of the Ministry of Agriculture.

3.1.4. Improvement of rice flour milling industry.

IPHT has initiated a island wide programme to encourage prospective entrepreneurs to establish new rice flour processing plants and modernize existing plants in major rice producing areas in the country. In this regard, during the period under review 298 Beneficiaries were trained. Ten (10) rice flour shifters have been purchased and distributed among the suitable beneficiaries. Name and address of the beneficiaries are:

- 1) Mr. D.P.Karanasena, no:67, Ruhunu gama, Weheragala.
- 2) Mr.M.Soorasena, Nidangala, Sorabora Janapadaya
- 3) Mr.P.Pryantha, P.M.Rice mill, Bogaha Junction Ambalantota.
- 4) Mr.H.K.Kalansooriya, Wanduramba gewattha, Narawala, Poddla,
- 5) Mr.W.S.Fernando, No:80A Jayanthi Mawatha, Anuradhapura.
- 6) Mr.Renuka Pradeepa Kumara Warnakulasooriya, No:80/A2 Jayanthi Mawatha Anuradhapura
- 7) Mr.A.P.L.Bandara, Tharusha Rice mill/Madura Lanka rice flour mill, Siripura
- 8) Mr.Ananda Puncinilme, Ravini Rice flour mill, Dadayam, Thlawwa
- 9) Mr.D.M.Chandana Prasad Disanayake, Mailewa, Thabutta, Galgamuwa

Through the distribution of rice flour shifters, the rice flour millers could be able to produce very fine rice flour particles and they have introduced rice flour to market with better quality. Especially rice flour producers have introduced string hopper rice flour that can be produced string hoppers with adding cold water. Flour millers have produced non gelatinized rice flour with fine particles that suitable to rice based bakery products. The demand for rice flour of these flour millers was increased after they initiated to use of rice flour shifters

3.1.5. Upgrading the facilities of selected medium/small scale rice mills operating in rice processing villages.

A recent survey conducted in Sri Lanka has revealed that a major portion of the rice which is sold in the open market is of poor quality containing high levels discolor and high broken percentage, especially in the lower priced grades. At present, these mills are utilized to produce rice by rice processing families/villages which were established under the supervision of IPHT in previous years. The main drawback identified in these small scale rice mills are lack of de-stoners and sieve aspirators for removing of stones from rice and bran adhering to rice respectively. The main hindrance for such a modernization programme is lack of sufficient capital by the rice millers to acquire the necessary machinery and equipment for mill improvement. Hence, it is important that subsidies are provided to them to upgrade their mills by including improved machinery and equipment like de-stoners and sieve aspirators.

This project is aimed at upgrading 10 selected small scale rice mills which are utilized by rice processing families under the technical guidance of the IPHT by providing De-stoners and Shifter with bran aspirator. These improved rice mills will process parboiled paddy for minimum of fifteen rice processing families and all other families in rice processing village. Therefore, the advantage of the subsidy given to the millers will indirectly go to rice families as they can produce high quality rice by using these improved mills. In this regards 139 rice families were trained. The miller who installed these machines produce good quality rice and they are giving the services to rice processing families of the village.

Description of distribution of benefits

District	Number of training classes	Number of trainees	Number of Beneficiaries
Anuradhapura	02	45	03
Kurunegala	01	27	02
Polonnaruwa	01	37	02
Ampara	01	30	03
Total	05	139	10

Name and address of the beneficiaries (Machinery distributed)

- 1.Mr. K.B.Wijedasa,Andara wewa,Nochchiyagama,Anuradhapura(Destoner and Aspirator)
- 2.Mrs.P.B.Thlakawathi, No.168,Jayanthi Village,Saliyapura, Anuradhapura.(Destoner only)
3. Mr.R.M.Dissanayaka,Saraboomi,313/1/139, Mahawelipanna ,Meegalawa,Anuradhapura.(Aspirator only)
4. Mr.L.M.Rathnabandara,Palugaswewa,Nagollagama,Kurunagala(Destoner and Aspirator)
5. Mr.G.P.C.S.Dayarathne,Chinthaka Rice mill, Madalanda Wattha,Kurunegala (Destoner and Aspirator)
- 6.Mr.W.M.Lal Dammika Wickremesinha,Yaya 06, No.110, Hansayapalama, Polonnarawa (Destoner and Aspirator)
7. Mr.M,G.Winne Kumaranathunga,54,Nidanwila,Damminna,Polonnaruwa. (Destoner and Aspirator)
8. Mr.A.M.U.K.Aththanayaka, 26/3, Wijayapura, Dadayamthalawa.Ampara (Destoner and Aspirator)
9. Mr.W.L.D. Pryantha Sampath Wickremesingha, No.6B/78, Ambagaha wella, Paragahakale, Ampara . (Destoner only)

3.1.6. Awareness creations and conducting of the training programs on post harvest technology

Development project on conducting awareness creation programs and training programs was launched to improve and update the knowledge on post harvest technology of paddy / rice and other grains, cereals, other field crops, fruits and vegetables and spice crops to officers from governmental and non governmental organizations, farmers, traders, collectors, processors and self employment beneficiaries. Beneficiaries will be made aware of the available and appropriate technologies hence leading to reduction of post harvest losses, improvement of product quality and increase in profit for the cultivators and manufacturers. This project was funded by Institute of Post Harvest Technology. 1593 persons were trained and 21 training programs were carried out under this project. Follow ups made to the field had relieved that the trainees of these programs have enhanced knowledge levels on post harvest aspects. They are using the technologies introduced, such as suitable harvesting maturities and practices, post harvest disease control methods, proper drying of grains specially paddy etc.

3.1.7. Development of on-farm paddy storage facilities to increase the farmers' income.

In Sri Lanka, the present farmer's family income is not satisfactory from rice cultivation because high cost of production and low farm gate price during the harvesting season. As one solution, for increasing the income of rice farmers, storing of paddy for several months can be proposed because during the off season market demand for paddy and price are considerably higher. But the post harvest losses in paddy storage have been identified 4% - 6% quantitatively and considerable quality deteriorations due to improper storage practices is one of major problems which they face. By storing paddy with proper practices, they can maintain the quality of produce for long time. Therefore, development of on- farm indoor paddy storage. A development project was conducted by the Institute of Post Harvest Technology to improve domestic level paddy storage facilities. Financial aid was given by Farmers' Trust Fund and Apiwawamu Ratanagamu programme of the Ministry of Agriculture. This project was implemented in Anuradhapura, Polonnaruwa, Ampara, Moneragala, Hambanthota, Kurunegala, Kandy, Jaffna, Matara and, Baticaloa districts. One hundred and twenty five (124) of rural level paddy stores were developed and fifty gunny bissa (45 busels capacity) units were introduced during year 2011.

Farmers who developed their existing paddy storage facilities have stored paddy proper way. They have reduced grain loss during storage with these improvements and preserved the grain quality. then farmers can sell their paddy harvest at higher prices during offseason

3.1.8 Initiation of rice based products manufacturing micro-enterprises in rural areas .

Sri Lankans obtain their carbohydrate requirements mainly through rice and wheat flour. Even though the rice has high nutritional impact, rice sector is facing severe competition from wheat flour based products and this coupled with the fact the majority of the rice is sold in the primary form without processing and commercial level rice based confectionaries are very limited.

Therefore any increase in the value added products has potential to acquire benefits to a large segment of the population. Moreover, rice products as a substitute for imported wheat and wheat flour products, can potentially save the valuable foreign exchange and facilitate maintenance of good health condition of population.

Hence this development project was carried out to establish eight small scale processing units of rice based products in Anuradhapura, Polonnaruwa, Kurunegala, Kandy, Ampara, Galle, Matara and Hambanthota districts with objectives of popularization rice based food products among Sri Lankan consumers and upgrading their nutritional status ensuring food security in the country. Moreover, enhance the economic status of rural community by introducing self-employment opportunities, through providing the technology and equipments needed at 50% subsidized rate.

At first stage, eight villages from eight districts in Sri Lanka were selected and awareness and training were conducted for about 550 people. Then the suitable beneficiaries, who have started rice based products micro-enterprises after the training was identified. Finally three electric ovens were distributed for the selected beneficiaries in three districts. Three months after initiation of the industry, they are in a good economic position in comparison to earlier. They get continuous demand for their rice based products.

Name and address of beneficiaries, provided electric oven

1. Mrs. Srimathi Balasooriya, No.11, Hadavirugama, Divulankadawala.
2. Mrs. A. Shanthi, Pallankulama. Rambewa.
3. Mrs. D.M. Keerthilatha, No. 21, Hapugala, Galle

3.2 Development projects carried out under the scheme of “Farmers Trust Fund “.

3.2.1 Development of on-farm indoor paddy storage facilities to increase farmers’ income.

A development project was conducted by the Institute of Post Harvest Technology to improve domestic level paddy storage facilities. Financial aid was given by Farmers’ Trust Fund of the Ministry of Agriculture. This project was implemented in Anuradhapura, Polonnaruwa, Ampara,, Hambanthota, Kurunegala, Kandy, Jaffna, Matara districts. 186 persons were trained 23 nos of storage structures were improved during year 2011.

Farmers who developed their existing paddy storage facilities have stored paddy proper way. They have reduced grain loss during storage with these improvements and preserved the grain quality. then farmers can sell their paddy harvest at higher prices during offseason.

3.3. Development projects under the IPHT funding.

3.3.1. Model Villages Programme-2011

Under this project 08 model villages are established and following activities are initiated.

Activity	Units	District	village
High quality rice production	04	Ampara	Gonagala
		Anuradhapura	Mahawillachhiya
		Polonnaruwa	Samagipura
Rice flour units	01	Ampara	Gonagala
Modernization of rice mill	02	Anuradhapura	Mahawillachhiya
		Kurunegala	Giribawa
Dehydration units	01	Galle	Wallipitimodara
Rice based products	06	Galle	Wallipitimodara
		Kurunegala	Giribawa
		Hambanthota	Suriyawewa
Fruit based products	05	Hambanthota	Suriyawewa ,
		Galle	Wallipitimodara
		Kandy	Bogahawewa
		Nuwara-eliya	Kandapola

Among all those projects, rural level high quality rice production units were established in Anuradhapura, Ampara, Polonnaruwa and Kurunegala districts. The beneficiaries were organized as a group and continue their activities collectively.

They send their products to distant places as well sell themselves at their own places. The beneficiaries able to uplift their income and that help to expand their income generation activity as well. Other income generated activities were not started due to lack of time for initiation.

3.3.2. Promote packaging methods and transportation for the reduction of post harvest losses in fruits and vegetables.

In order to prevent the serious losses occurring in fruits & vegetables during post operations from farmer to consumer, amounting to 30-35% of the annual production a project funded by the Treasury was continued in the year 2011 to provide plastic crates to farmers, collectors and wholesale traders at subsidized rate for transportation of fruits and vegetables . Under this project the IPHT has purchased 35000 plastic crates consisting of three types which can be used for tomatoes, other vegetables and fruits such as papaw, pine apple for distribution among farmers, traders and collectors at 50% subsidy. In this regard, 17921 plastic crates were provided to farmers and collectors of fruits and vegetables in the districts of Nuwara Eliya, Badulla, Anuradhapura and Polonnaruwa and traders operating their business in Dedicated Economic Centres in Dambulla, Tambuttegama, Keppetipola, . In addition, 7312 farmers and collectors were trained to create awareness among them on the benefits of using improved packages for handling and transportation of fruits and vegetables. More than 75% of farmers who supply fruits and vegetable to supermarkets use plastic crates purchase under this project and they were able to reduce rejects at collecting centres from 10 - 20 % to 3- 5 %. Also farmers are paid higher prices than to outside market. Farmers, collector, transporter in normal supply chains purchased plastic crates are transporting fruits and vegetable using plastic crates and have minimize damages while preserving the quality. these people now have obtained high demand for their produce and made links with specific markets.

3.3.3. Awareness creation and conducting training programmes on post harvest technology

When considering the current status of the country, farming community pays high attention on cultivation and pre harvest aspects and they achieve high levels of yield as well. But due to mal practices in the post harvest field, this harvest is not being fully utilized leading to a high post harvest loss. For durable crops this loss is around 12-13%

and for perishables, it is around 30-40%. Furthermore, due to this post harvest loss, the farm gate price reduces while the retail price increases. Therefore, the farmer receives less profit and the consumer has to pay a high price. And the product quality also is being reduced due to this use of improper practices. Then consumer will be paying more for a low quality product. The major reason for occurrence of this loss is lack of knowledge on post harvest technologies. At the same time, people are used to selling fresh produce as fresh produce itself. They are not aware of the value additions and the ways to maximize their profits.

Therefore, a development project on conducting awareness creation programs and training programs was launched to improve and update the knowledge on post harvest technology of paddy/rice and other grains, cereals, other field crops, fruits vegetables and spice crops to officers from governmental and nongovernmental organizations, farmers, traders, collectors, processors and self employment beneficiaries. Beneficiaries will be made aware of the available and appropriate technologies hence leading to reduction of post harvest losses, improvement of product quality and increase in profit for the cultivators and manufacturers.

Follow ups made to the field had relieved that the trainees of these programs have enhanced knowledge levels on post harvest aspects. They are using the technologies introduced, such as suitable harvesting maturities and practices, post harvest disease control methods, proper drying of grains specially paddy etc.

3.3.4. Introduction of agro based micro- enterprises in rural areas

In this project, the research findings of IPHT related to agro based products was introduced. The project was carried out by the extension staff of IPHT, Kurunegala, Polonnaruwa, Hambantota, Ampara, Kandy, Nuwara Eliya. For example, Tomato based products, dehydration of fruits and vegetables, Tamarind based products, rural level rice parboiling, Spice processing, Lime based products, Rural level rice processing, Rural level rice flour processing units, Rice processing families, Modernization of grain storage units, Sesame based products, Rice flour based products. 435 persons were trained and 18 number of training programmes were conducted and 12 nos of production units were established.

1. Initiation rural level rice mills :-
 - a. Welfare society, Nugelanda
 - b. Mr. Chinthaka, Bamunugedara, Kurunegala
 - c. Mrs. Manel Maheshika, Saliya Ashokapura, Rajanganaya

2. Production of rice flour :- a. Welfare society, Nugelanda
b. Mr. Priyal Padma Darshana, C/362/2, Eragama road, Ampara
c. Mr. D.V.Premarathne, Pubudu rice mill, Rajagalathanna
3. Lime based products :- Mr. Senadeera, 02nd Post, Siyambalanduwa
4. Rice flour based products :- Mrs. H.B. Shrimathi Balasooriya, No.11, Rasika Stores, Hadawirugama, Diwulankadawala
5. Dehydrated vegetables :- Mrs. Chintha De Was Gunawardane, No.395, Welpitimodara, Gintota
6. Dehydrated products:- Mr. K.A. Abeysekara, No.05, Rathnagiriya, Lindula
7. Rice flour based products :- Mr. Nadeeka Sampath Thennakoon, New Nuwara Eliya Foods, No.37, Meepilimana, Nuwara Eliya

After initiation, the beneficiaries of this project are producing the value added products using the technology introduced by IPHT. They are producing high quality products and are being marketed in their villages at household level, nearby retail outlets and outside their village and area as well.

3.3.5. Improvement of rice flour milling industry.

IPHT has initiated an island wide programme to encourage prospective entrepreneurs to establish new rice flour processing plants and modernize existing plants in major rice producing areas in the country. In this regard, during the period under review 22 beneficiaries were trained and 25 no of units were modernized/ established 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..

1. Mr.B.L.Alfred Liyanage, Wijerama Mawatha, South Canal, Ambanganga, Parakrama Samudraya.
2. Mrs.Niranjala Ranaweera, Sriyananda Estate,Singhapitiya,Gampola
3. Mr.R.M.Palitha Ranathunga,Alupotha,Ussapitiya.

3.3.6 Mechanization of rice milling industry to enhance productivity of rice mills and improvement of locally produce rice

Rice processing is acknowledged to be the largest and most widespread agro-based industry in Sri Lanka, processing approximately 2.8 million metric tons annually. Yet, this traditional industry has been left largely untouched to perpetuate its traditional ways. As a result, the recovery of rice from paddy milling at present is as low as 60-65%, as compared to a recovery level of 69-70% that could be obtained in a modernized rice mill, and the quality of rice produced is poor due to occurrence of high levels of impurities, broken, discolored and damaged grains. Hence, modernization of the rice milling industry would significantly reduce rice production costs and improve quality thus ensuring availability of superior quality rice at a competitive price.

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 in the country especially in Northern and Eastern provinces. And under this programme, it is expected to transfer knowledge on modern machinery and latest technology to those rice millers in proposed rice export zones namely Hambantota, Ampara, Polonnaruwa and Mannar districts.

The Institute of Post Harvest Technology continued the rice mill modernization programme that was initiated in the year 2001 to improve the processing techniques of existing rice mills in the country. 139 beneficiaries were trained and 10 numbers of units were modernized/ Mechanized.

3.3.7. Establishment of rice processing villages

Establishment of rice processing villages in major rice producing areas in the country was continued in 2011. If rural farmers engaged themselves in rice processing, they could increase the market value of their produce and thereby significantly increase their income and at the same time, create self-employment among the rural farming sector. In this regard, during the period under review beneficiaries were trained. The members of the rice processing villages acquired parboiling and milling facilities through concessionary credit obtained from development banks in the area.

The parboiling capacity of each family is 150 – 200 kg per day. At present, the members of the rice processing villages produce high quality rice using the technologies developed by the IPHT and sell in the rural sector market as well as in the urban market. Each family generate a considerable net income of Rs.10000 – 15000 in project areas by selling rice instead of paddy. During the year 2011, twenty four (24) rice processing villages were established. Two hundred and seventy five (275) numbers members of farm families were trained. Some of the beneficiaries are:-

1. Mr. M.G. Wimal Kumara, Samagipura, Minneriya
2. Mrs. W.G. Nandawathi, Samagipura, Minneriya
3. Mrs. Ariyawathi Wickramanayake, Samagipura, Minneriya
4. Mr. Lasantha Udalagama, Devala Road, Minneriya
5. Mrs. P.Prema Wanasinghe, Samagipura, Minneriya
6. Mrs. Lakmini Wijebandara, 9th Cannal, Minneriya
7. Mrs. S.M. Depika Sanjeewani, 9th Cannal, Minneriya
8. Mr. T.M.Kodagoda, Samagipura, Minneriya
9. Mr. D.M. Abeykoon Bandara, 9th Cannal, Minneriya
10. Mr. T.D. Chaminda Jayalath, Samagipura, Minneriya
11. Mrs. Kalyani Gunarathne, Palugaswewa, Nagollagama
12. Mrs. Jayanthi Nilmini, No. 233, Yaya 03, Solepura

Members of these villages are now using the technologies introduced by the Institute of Post Harvest Technology. They have purchased the parboiling equipment and had started producing high quality parboiled rice at their house hold level. They are selling their produce within their villages, at home, village fairs and nearby retail outlets.

3.4 Development projects under the world food programme funding.

3.4.1 Establishment of rice processing villages and improvement of rice flour mills in the Northern and eastern area of Sri Lanka (World food programme)

Ten (10) numbers of villages were selected for carrying out project activities, in this regard 912 selected beneficiaries were trained. Hundred and twenty (120) beneficiaries were selected for production of high quality rice production.

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 2011:

Improved post harvest technology	District	No.
a. IPHT rice parboiling vessel	Ampara, Anuradhapura Pollonnaruwa, Badulla, Kandy Ratnapura, Hambantota, Kurunegala	602
d. IPHT Hand operated maize sheller	National food promotion board	01
	Deputy Director of Agriculture, Bindunuwewa Bandarawela	01
	Mr.E.Mohomad, Afganisthan.	02
	Mr.Lasantha kumara.Lanka chemical Industries, Colombo 02	01
	Dasun Jayamanna Somarathana. Dakuna Ivura, Yaya 05 Rajanganaya (to be sent to South Africa.)	06

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 2011, IPHT has purchased totally 8260.5 kg and 3260.5kg of paddy from Mr.Wimalasena, Alankulama, and the rest of paddy from Paddy Marketing board for producing red rice noodle. The annual production of year 2011 was 4989.5 kg of red rice noodles and 22683 packets of 200g were sold at the outlet of IPHT. A group of Nestle company was visited to see the noodles factory on 26 th January 2011.

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:

Of the 304 training programmes that were conducted, 65 were short term residential training courses of duration 1 to 6 days and study visits, 43 were non-residential courses and 239 were field training/demonstrations conducted for farmers, traders and small and medium scale processors at Field Centres located in Ampara, Nuwara Eliya, Kandy, Ambanpola, Anuradhapura and Mayurapura.

a) *Inplant training*

Four undergraduate students from Engineering Faculty university of Peradeniya were trained on machinery and post harvest technology during June to July 2011.

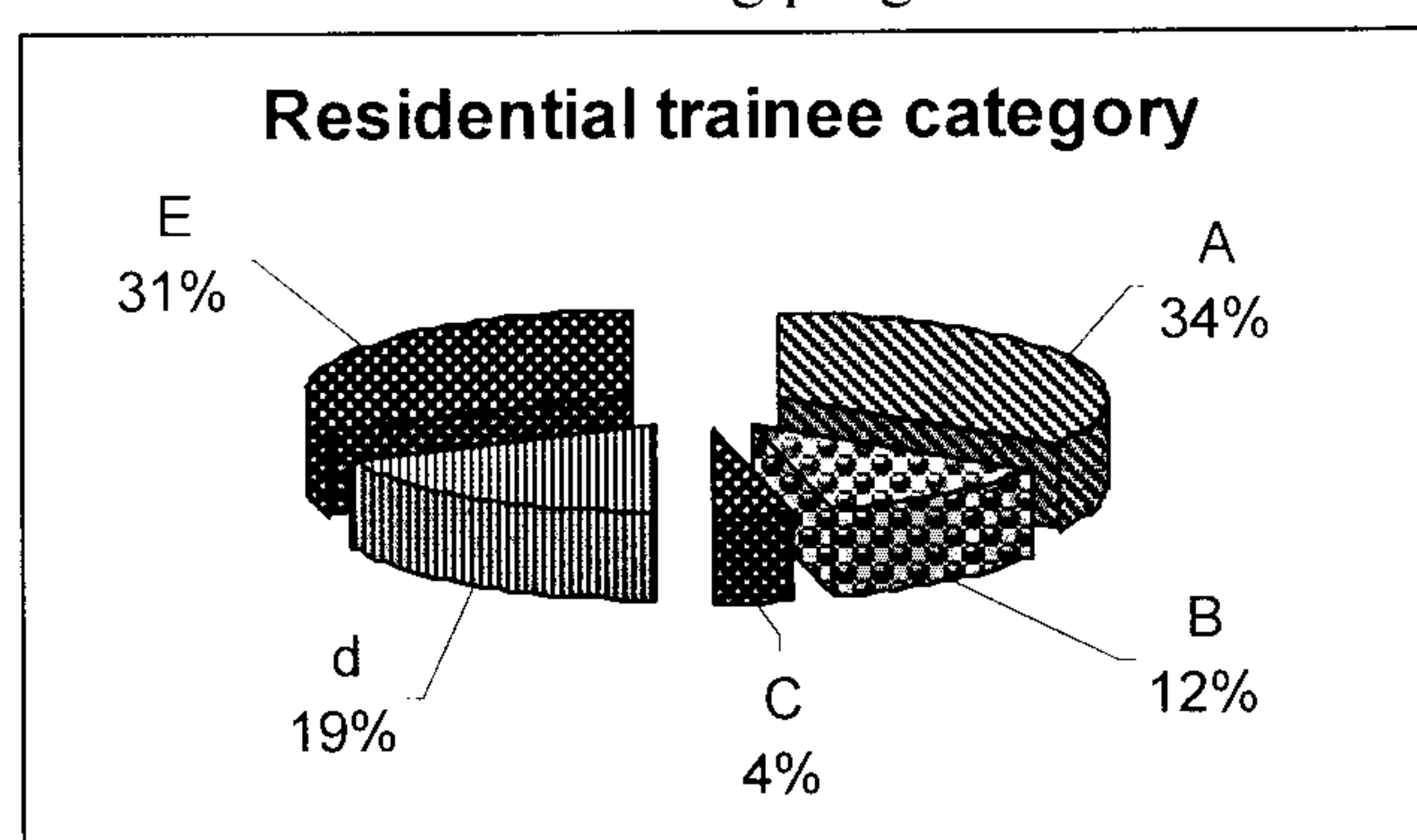
b) *Residential training:*

During the year 2011, 65 short-term residential training courses were conducted and 1929 persons were trained in various disciplines of Post Harvest Technology and the details are given in Fig 1.

FIG1: RESIDENTIAL TRAINEES OF IPHT

Total number of trainees- 1929

Total no of training programmes -65



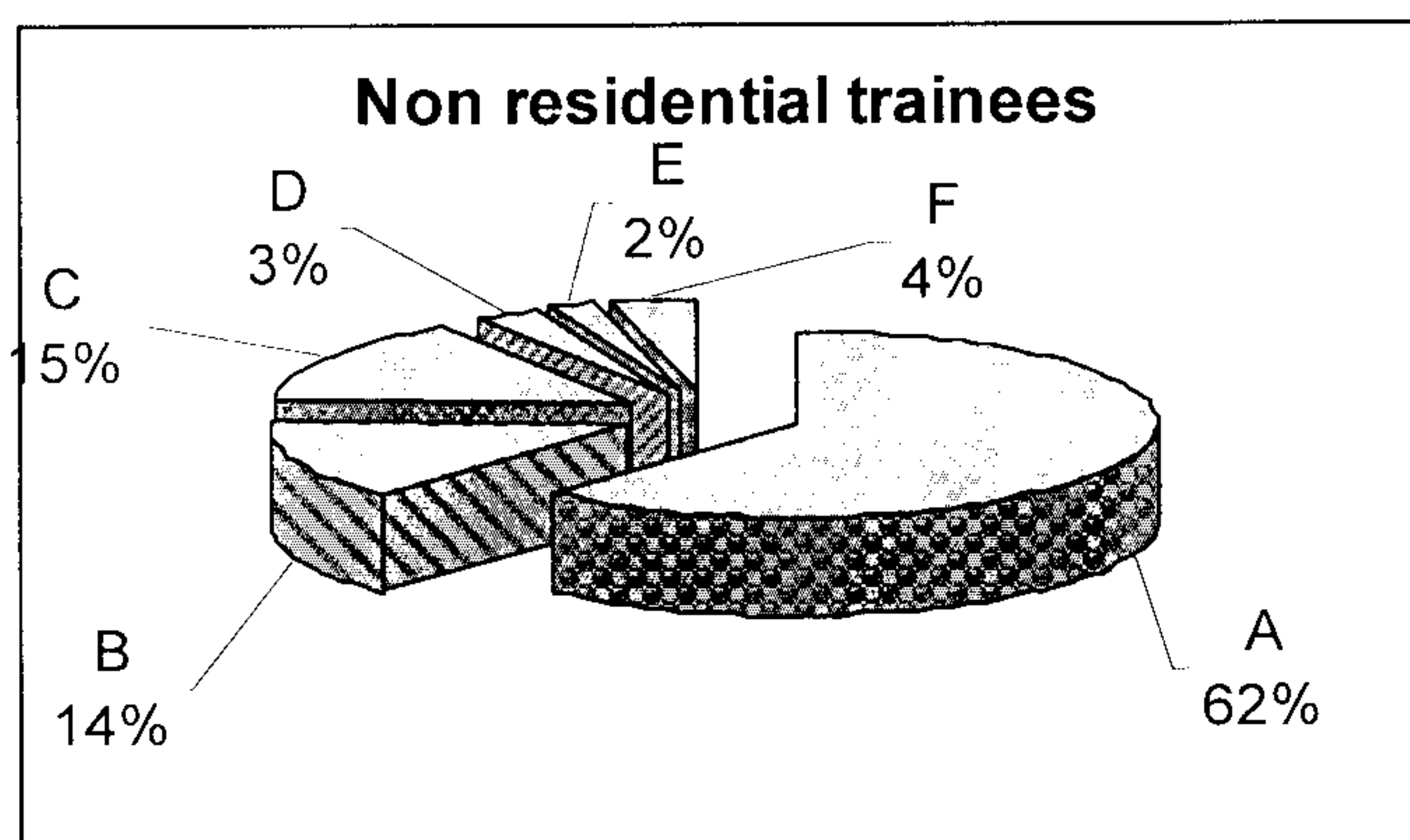
Trainee categories:

- A. Farmers, farmwomen and members of farmer organizations -664(34%).
- B. Project beneficiaries and small/medium scale entrepreneurs -240(12%)
- C. Rice and other grain processors-67(4%).
- D. Extension Officers from public, co-operative, private sectors and NGOO-360(19%).
- E. Students from Secondary schools, Universities, Schools of Agriculture and Technical Colleges -598(31%).

FIG2: NON-RESIDENTIAL TRAINEES OF IPHT

Total number of trainees- 5239

Total no of training programmes -239



- A. Farmers, farmwomen and members of farmer organizations 3242(62%)
 B. Project beneficiaries and small/medium scale entrepreneurs 722(14%)
 C. Rice and other grain processors 799(15%)
 D. Extension Officers from public, co-operative, private sectors and NGO 182(3%)
 E. Students from Secondary schools, Universities, Schools of Agriculture and Technical Colleges 83(2%)
 F. Bakery owners 211(4%)

c) Non residential training, Field level training / demonstrations

During the period under review, the institute continued its technology transfer activities effectively especially in major crop producing areas such as Ampara, Nuwara Eliya, Abanpola (Kurunegala district), Kandy, Myurapura (Hambantota District), Anuradhapra and Polonnaruwa through its Field Centres. During the year 2011, the 239 non- residential training, field training programmes and demonstrations were conducted and 5239 individuals were trained. The details of field training activities carried out island wide during the year 2011 are given below:

Table 1. Details of non- residential training and field training /demonstrations conducted during the year 2011.

Trainee Category	Subject area	No. of Participants
i Farmers, farm women from Anuradhapura, Pollonaruwa, Vauniya, Mannar, Ampara, Monaragala, NuwaraEliya, and Badulla districts	Improved post harvest practices, rural level rice parboiling and processing	2029

ii	Project beneficiaries and small scale entrepreneurs from Anuradhapura, Galle, Pollonaruwa, Ampara and Monaragala, districts	Rural level rice parboiling and processing, grain flour processing, manufacture of rice biscuits, manufacture of fruit based products.	296
iii	Fruits and vegetable growers and collectors from Anuradhapura, Pollonaruwa, Ampara, Monaragala, NuwaraEliya, Badulla, Kandy, Kurunegala and Hambantota districts.	Handling of fruits and vegetables, Preservation techniques.	1662
iv.	Rice and other grain processors from Anuradhapura, polonnaruwa And Kurunegala districts and north Eastern areas.	Rice and other grain processing	303
iv	Farmers traders,ricemillers who stored rice from Ampara district	Rice stores management and improvement	568
v .	Agro based product processors from Polonnaruwa, Anuradhapura, Nuwara Eliya, Hambantota, Galle,Ambanpola andAmpara.	Lime,Tomato,Tamarind and other under utilized fruits and vegetables processing	381
Total.			5239

4.3 Participation in Exhibitions

The IPHT participated in three exhibitions held island wide during the year 2011 as follows:

- i. ‘Dayata Kirula Exhibision at Buttala in Monaragala district from 4-10Th February2011
- ii. “Govi Sathiya” Exhibition at Vavniya Farm from 1-5 th August 2011
- iii. “Isuru saviya” Exhibition at Kurunegala from 28 th June to 2 nd July
- iv. North province agriculture exhibition at “Thirunelweli” Farm from 05-09 October 2011

- v. World Children day exhibition at Anuradhapura “Walisingha Harischandra Vidyalaya” from 12 to 13 October 2011
- vi. “Divi Naguma” exhibition at Anuradhapura “Niwaththakachathiya Maha Vidyalaya”

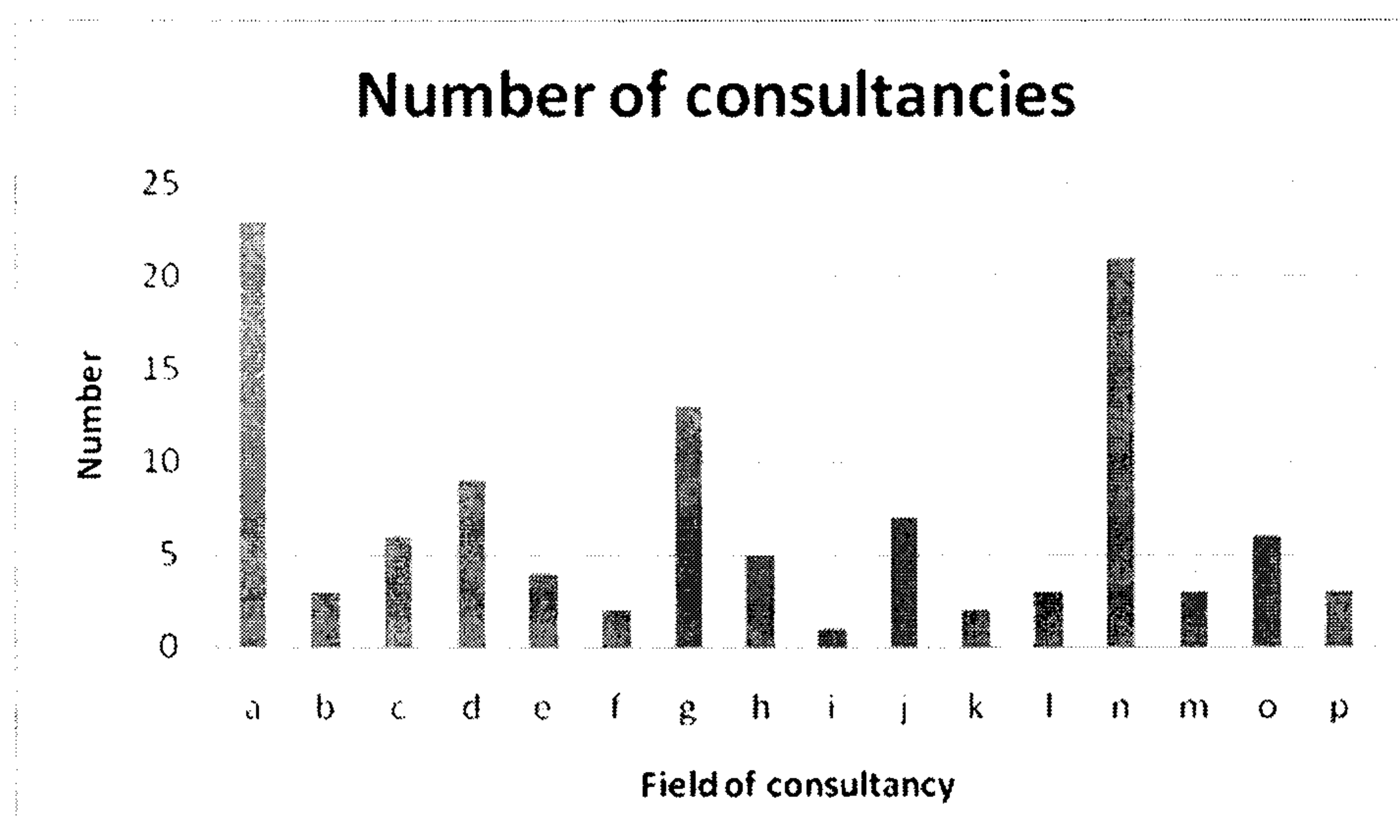
5. CONSULTANCY AND ADVISORY SERVICES

5.1 Number of consultancies carried by IPHT staff

During the year 2011, institute invented new post harvest technologies and those technologies could be send to the entrepreneurs to enhance their technologies accordingly, as a result one hundred and eleven (111) 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 2011 are given in Fig.3.

Figure 3. The details of consultancies completed during the year 2011



Field of consultancy:

- | | |
|---|----|
| a. Establishment of rice processing plants | 23 |
| b. Rehabilitation and modernization of existing processing plants | 03 |
| c. Rice and other flour processing | 06 |
| d. Information on rice/grain/spice processing technology | 09 |

e. Grain storage and construction of ware houses	04
f. Quality control and grain procurement	02
g. Drying of chili, fruits and vegetable, spices, grains/herbals	13
h. RPRDC/ IPHT post harvest machinery and equipment	05
i. Rural level rice processing	01
j. Production of rice /grain based products and weaning / infant foods.	07
k. Machinery and equipment evaluation	02
l. Processing of fruits and vegetables	03
m. Information on crop post harvest technology	21
n. Information on noodle production technology	03
o. Food packaging	06
p. information on food technology	03

5.2 Analysis of grain samples

Name	Type of sample	No. of samples	Analysis done
S.A.Silva & sons Giriulla	Food sample pack	01	Measurement of oxygen content
Sri Lanka Army	Rice	13	Quality analysis
Rupasinghe rice mill , Polhahawela	Rice flour	01	Particle size and quality analysis
Tesco Lanka Rice mill,Srawasthipura	paddy	03	Quality analysis
Health ministry	Soya bean	10	Quality analysis
Coop. society Homagama	Rice	02	Quality analysis

6. AFFILIATION WITH UNIVERSITIES AND OTHER ACEDEMIC INSTITUTIONS

The IPHT worked closely with universities and other academic institutions in executing collaborative research, training and other development projects pertaining to Post Harvest Technology.

6.1 Research projects conducted at the IPHT by students of universities as partial fulfillment of Bachelor's degree

Name of University	No. of students
a) Faculty of Agriculture, University of Peradeniya	09
b) Faculty of Agriculture, University of Rajarata	05
c) Faculty of Food Technology, University of Sabaragamuwa	01
d) Faculty of Agriculture and Plantation Wayamba University of Sri Lanka	01
a) Open University	01

Total: 17

7. PUBLICITY/ PUBLICATIONS

7.1 Publicity programme on Post harvest technology.

- 1) Director and research officers were participated in ITN “Ran Atuwa” at 10.00 p.m. on 26-04-2011.
- 2) Research officers and mechanical engineer was participated in Radio programme on “Saruketha” On 2011-05-05 at 10.30.a.m. Broadcast by Rajarata sevaya at Anuradhapura.
- 3) Radio programme “Mahagaedarin Govigedarata” was broadcast on Thursdays 6.30 to 7.30 p.m. once in a every three months. Four (04) programmes were conducted by the research staff of IPHT.
- 4) Four (04) Advertisements were provided to “Govigedara” magazine published by “Govi gedara” pvt.Ltd.

7.2 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 “Dinamina” paper about “Effect on rice quality by water chemicals in soaking of paddy”.
2. 02 nos. of articles on “Dinamina” and “Daily News” papers on “Mobil stall for retail selling of fruits and vegetables”

7.3 Circulation of IPHT Publications

During the period under review 25333 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. 438 copies of the IPHT news bulletin “Pasu Aswanu Puwath” were issued to various government organizations, NGOs and required persons.

8. SPECIAL EVENTS

A programme on handing over plastic crates was carried out at Matara “Cockmaduwa” temple area on 13.03. 2011. The chief guest was Hon. Agriculture minister Mr. Mahinda Yapa Abeywardene. In this occasion, Three (03) numbers of plastic crates per person were given free of charge to forty (40) trainee beneficiaries of Mirissa Agrarian Service Centre and five (05) numbers of plastic crates per person were given to Seventy five (75) Sellers of Denipitiya fair and Ten (10) crates per person plastic crates were distributed to ten (10) fruit traders in Matara town. All plastic crates were distributed free of charge. Hundred and fifty two (152) persons participated at this programme.

9.0 FLOOD SITUATION AT 2011.

In this year, overflow of “Malwathu Oya” due to high rainfall caused damages to buildings and other properties. The level of the flood waters at rice based product plant 3-4 feet. The following buildings and properties were damaged due to flood.

1. Noodle store and stocks of noodles
2. Buildings of rice based products processing plant
3. Food Technology laboratory and microbiology laboratory
4. Three (03) Office rooms of research officers and the building
5. Pond of the Institute
6. Security room
7. Cultivation of IPHT
8. 14 numbers of Quarters.
9. Road to Quarters and the culvert
10. 135 ft of parapet wall was destroyed.

Laboratory equipment cannot be further use due to damage from flood waters. Computers and some of library books, books and documents of researchers also damaged. Due to flood water in the noodles store all the noodles in the stocks and packets were damaged. Motors and machineries have to be repaired for them to make running condition. Quarters had to be cleaned and repair damages.

To report damages of properties three numbers (03) of committees were formed and they have reported that the total damage was Rs.12,823,415.64.

10 REPRESENTATION IN PROFESSIONAL COMMITTEES/ SEMINARS/ WORKSHOPS

- The Director of the IPHT served as a member of the Board of the Faculty of Agriculture, Rajarata University.
- The Director served as a member of the National post harvest committee of the Council for Agricultural Research Policy. (CARP)
- The Director served as a member of the committee on Technology Foresight Study on Rice Based Products at National Science Foundation.
- The Director served as a member of the committee on Technology Foresight Study on Rice Based Products at National Science Foundation.
- The Director served as a member of the national steering committee on Post Harvest Project funded by World Food Programme.
- Director Attended , meeting at World Food Programme, Colombo on 10.01.2011
- Director Attended National Post Harvest Commute meeting at CARP on 13.01.2011 as a committee member.
- Director and staff Attended plastic crates distribution programme at Sooriyawewa on 31.01.2011

- Director and staff Attended plastic crates distribution programme at Wellawaya on 01.02.2011
- Director attended meeting on popularization of Rice based products at the ministry on 22/02/2011
- Director attended Rice based popularization program held at Makola Bakery on 02/02/2011 as an advisor.
- Director attended a discussion held at temple trees regarding the plastic crates on 03/02/2011
- Director Attended National Post Harvest Commute meeting at CARP on 10.03.2011 as a committee member.
- Director conducted a lecture on post harvest losses of Durables to newly recruited agriculture officers at Batticloa on 22.03.2011
- Director conducted a lecture on post harvest losses of Durables to newly recruited agriculture officers at Trincomalee on 31.03.2011
- Director participated TV discussion (Ran Atuwa Programme) regarding the use of plastic crates at ITN on 08.04.2011
- Director and a research officer attended seminar on Nutrition at Trans Asia hotel on 27/04/2011
- Director attended for opening of “dansala’ at Economic Centre at Nuwara-Eliya on 17.05.2011
- Director attended Food Safety seminar at Mount Lavinia hotel on 20.05.2011 organized by National Science Foundation
- Director attended meeting at Trade Ministry regarding introduction of plastic crates on 23.05.2011
- Director attended National Post Harvest Committee meeting at CARP on 23.05.2011 as a committee member.
- Director attended , meeting at World Food Programme, Colombo on 17.06.2011
- Director attended , seminar on Food Security, At hotel Galadari Colombo on 21.06.2011 organized by National Science Foundation
- Director attended , meeting at HARTI on Agricultural policies on 04.07.2011
- Director and a Research officer attended , meeting at Dambulla Economic Centre Regarding plastic crates organized by Consumer Authority on 27.07.2011
- Director attended , meeting with officers of World Food Programme, at PGRC, Gannoruwa on 17.06.2011

- Director attended Food Safety seminar at Mount Lavinia hotel on 20.05.2011 organized by National Science Foundation
- Director attended meeting at Trade Ministry regarding introduction of plastic crates on 23.05.2011
- Director attended National Post Harvest Committee meeting at CARP on 23.05.2011 as a committee member.
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- Director attended , meeting with officers of World Food Programme, at PGRC, Gannoruwa on 17.06.2011
- Director attended meeting at Trade Ministry regarding introduction of plastic crates on 09.08.2011
- Director attended , workshop on Biotechnology of GM foods at Biotechnology Centre, Peradeniya on 12.08.2011
- Director attended , meeting at Narahenpita Economic Centre Regarding plastic crates, organized by Consumer Authority on 17.08.2011
- Director and a research officer attended , meeting at Meegoda Economic Centre Regarding plastic crates, organized by Consumer Authority on 18.08.2011
- Director attended , meeting at Sri Lanka Foundation Institute on National Frame work 22.08.2011 organized by Ministry of Agriculture.
- Director and a research officer attended , meeting at Welisara Economic Centre Regarding plastic crates organized by Consumer Authority on 23.08.2011
- Director participated at CARP awarding ceremony held at BMICH on 25.08.2011
- Director delivered a lecture on post harvest technologies of rice at agriculture workshop organized by Wayaba university on 03.09.2012
- Director attended , meeting at Piliyandala Economic Centre Regarding plastic crates organized by Consumer Authority on 05.09.2011
- Director attended , meeting at Embilipitiya Economic Centre Regarding plastic crates organized by Consumer Authority on 06.09.2011
- Director visited 'Freelan' factory at Mathara on 19/09/2011

- Director attended ASDA meeting at PGRC in Gannoruwa on 15/09/2011
- Director attended , Biotechnology Seminar at Peradeniya on 30.09.2011
- Director attended , World Food Programme meeting, at Gannoruwa on 18.10.2011
- Director and Staff attended Procurement Procedures meeting at Gannoruwa Inservice organized by Ministry of Agriculture from 29.10.2011 to 30.10.2011
- Director attended Seminar on National Innovative System at Galadari Hotel organized by NSF on 2-3 Nov 2011
- Director attended National Post Harvest Committee meeting on 04.11.2011
- Director and Research Officers attended Corporate Plan final preparation meeting at the Ministry on 16.11.2011
- Director attended PGIA Congress Research meeting & served as a Judge for technical Sessions on 17.11.2011
- Director, Research Officer and Engineers attended Fruit Ripening Seminar at HARTI on 23.11.2011 organized by National Post Harvest Committee, CARP.
- Chairman and Director attended to Parliament Budget meeting on 07.12.2011
- Director and Research Officer attended meeting at Gannoruwa with Secretary (Ministry of Agriculture) on 17.12.2011 regarding the implementation of new field trials of plastic crates

11. IMPROVEMENT OF FACILITIES FOR RESEARCH AND TRAINING/ EXTENSION

1. Renovation of kitchen of the hostel by laying of tiles of the floor and fixing pantry cupboard.
2. Repair of concrete roof of the noodle plant building
3. Construction of the water tank of number 06 official Quarter
4. Fixing of a notice board in the Nuwara Eliya field centre
5. Following equipment for laboratories for Quality control, Food chemistry and Microbiology laboratories:
 - i. Flour mixing equipment - 01 no.
 - ii. Mixing machinery -01 no
 - iii. String hopper making equipment-01no.
6. Purchase of Office equipment
7. Purchase of two (02) nos of computer tables.
8. Fixing of a name board for Kandy field centre
9. Purchase of Laser printer -01no
10. Construction of a common garage for 4 quarters
11. Repair of No.08 Quarter
12. Purchase of Wall fan for Director Quarter.
13. Purchase of Telephone for Security room.

14. Partitions for rooms of old library section
15. Repairs of the no 01 Quarter
16. Reconstruction of damaged 135 ft. parapet wall.

12. 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 2011:

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 | Master of science of Post harvest Technology-
Thailand
April 2011 to March 2013 |

b) Short term training programmes

- | | |
|---|--|
| 1) Mrs.R.M.R.N.K.
Rathnayaka (Research
Officer) | workshop on building safe, competitive,
Horticultural chains in the Asia-Pacific
Region: Fruit and vegetable -Pakistan
07/03/2011 to 12/03/2011 |
| 2) Mr.P.Janaka Subasinghe
Administrative officer | Food security: Post Harvest and quality
assurance of selected Agro industrial
products-Thailand-01 st to 30 th June 2011 |
| 3) Mr.B.D.M.P.Bandara
Engineer) | Seminar on food management for -(Mechanical
developing countries China
23 /06/2011 to 20/07/2011 |
| 4) Mrs.N.H.M.Sumitra
(Field Officer) | International course on new technologies
of agricultural products processing
China 06/04/2011 to 25/04/2011 |
| 5) Mr.M.M.Herath
(Extension officer) | International training on Post harvest
Technology on Fruits and vegetables
Indonesia) 7/04/2011 to 21/04/2011 |

13. STAFF POSITION AS AT 31st DECEMBER 2011

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 biologyof 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) M.Phill. Food Sci.& Tech. (Sri Lanka)
Research Officer	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 D. Ilangaratne
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
Mill Operator	02
Boiler Operator	02
Electrician	01
Welder	01
Driver	08
Workshop Operator	01
Maintenance Assistant	05
Technician	01
Cook	01
Security Guard	06
Ronio Operator	01
Canteen Labourer	01
Seva Sahayaka	01
Sanitary Labourer	01

Audit Committee Report – 2011

The audit committee of the Institute of Post Harvest Technology was consisted of the following members.

Mrs. Sumana Yapa	- Member of the Board of Directors of the IPHT (Treasury Representative) Chairman of the Audit Committee
Mr.Gunarathne Gallage	- Vice Chairman - IPHT
Dr.(Mrs.) B.M.K.S Thilakarathne	- Actg. Director - IPHT
Mr. R.K.A.P.Ramanayake	- Actg. Deputy Director (Admn. & Fin.)/Accountant –IPHT
Mr.R.M.D. Rathnayake	- Internal Auditor - IPHT Convener of the Audit Committee

Three meetings were convened in the relevant year on following dates,

25th May 2011

06th October 2011

22nd December 2011

The officials of the Department of Auditor General and the Chief Internal Auditor of the Ministry of Agriculture participated as observers to these meetings. The committee reviewed the system deficiencies and management weaknesses, pointed out by the Internal Auditor of the institute as well as the government auditors, in their audit queries and audit reports. Actions were taken to provide necessary recommendations and propositions to rectify those deficiencies and short comings and to follow up implementation of such recommendations.

With relevance to the committee attended matters, actions were taken to direct necessary guidance and recommendations to the board of directors in order to establish a more productive administrative system based on assessment of the existing administrative system and policies.

The committee had drawn special attention regarding management of the following fields and systems of the period under review.

- Internal audit plan and performance of the internal auditing of the relevant year reviewed.
- Management of fixed assets, supervision of procedure of rendering numbers for fixed assets in Anuradhapura center, and performing the annual verification efficiently and effectively.

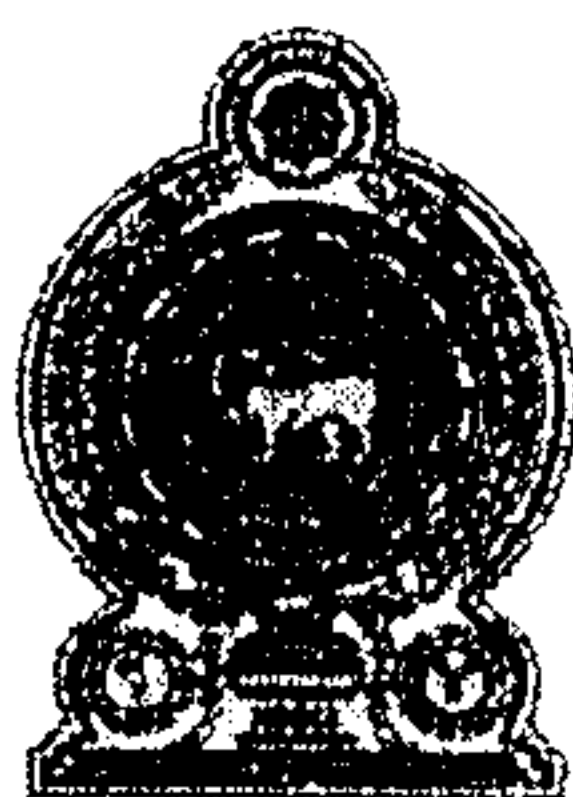
- Procedure of taking the assets transferred from P.M.B. into accounts after valuation.
- Formalizing implementation of research via introduction of the research guide
- Taking necessary action on executing appropriate measures regarding the account balances which have been outstanding for a long period of time.
- Drawing the attention of the board of directors on requirement of preparing a guide in order to formalize the consultation process
- Drawing attention of the board of directors on the requirement and necessary steps to be taken in order to establish better coordination among the research and the training & extension divisions, and further to provide the technologies introduced by the institute to the field on a uniform basis.
- The systematic implementation of projects conducted in collaboration with external agencies.
- Reviewing the progress of the process of getting approval for the recruitment and promotion procedures of the institute.
- Drafting plans and policies for providing training required for staff of the finance and administrative section of the institute.
- Upgrading the record room and introducing controlling systems
- Systematic adoption of disciplinary actions

On behalf of the audit committee,

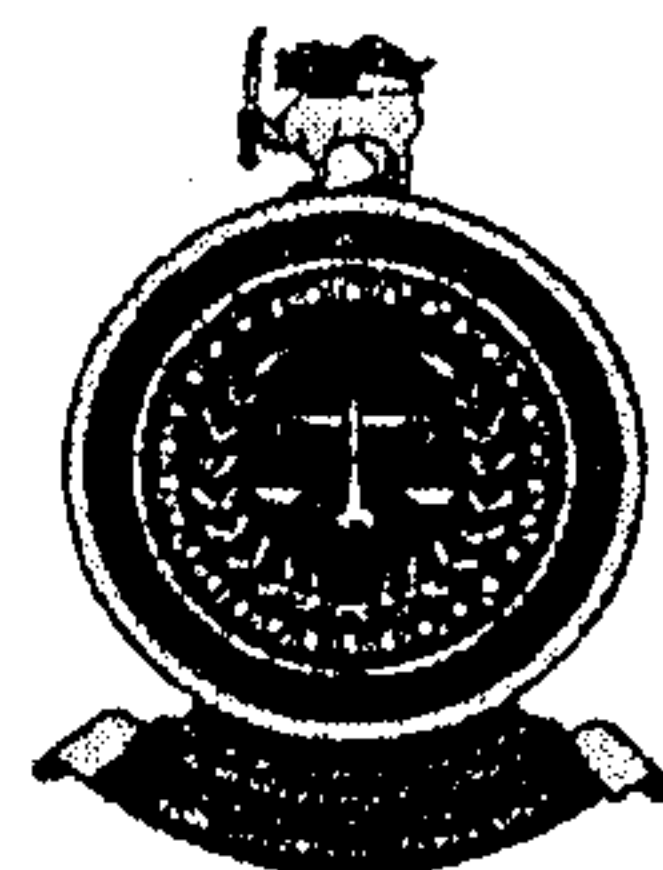
Sumana Yapa
Chairman
Audit Committee
Institute of Post Harvest Technology

Colombo

31.07.2012



විගණකාධිපති දෙපාර්තමේන්තුව
கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය }
 துலைவா } NC/AP/E/2012/28
 My No }

මගේ අංකය }
 உமது இல }
 Your No. }

දිනය }
 திகதி } 16 November 2012
 Date }

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 2011 in terms of Section 14(2)(C) of the Finance Act. No. 38 of 1971.

The audit of financial Statements of the Institute of the Post Harvest Technology for the year ended 31 December 2011 comprising the balance sheet as at 31 December 2011 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 notes 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 issued to the Chairman of the Post Harvest Institute of Technology on 15 August 2012.

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

අංක 306/72 පොල්දූව පාර,
 බත්තරමුල්ල, ශ්‍රී ලංකාව

දුරකථනය }
 தொலைபேசி } 2887028 -34
 Telephone }

இல. 306/72, பொல்துவ வீதி,
 புத்தரமுல்லை இலங்கை

ෆැක්ස් අංකය }
 பக்ஸ் இல } 2887223
 Fax No. }

No.306/72, Polduwa Road,
 Battaramulla, Sri Lanka

ඉලෙක්ට්‍රොනික් තැපෑල }
 #- மெயில் } oaggov@sltnet.lk
 E-mail. }

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 judgment, including the assessment of risk of material misstatements 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 financial statements. Subsections (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.

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 2011 and its financial performance and 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

Seven items of fixed assets costing Rs.31,831,759 which had been fully depreciated continued to be used during the year under review. These had not been revalued and the values had not been shown in the financial statements.

2.2.2 Accounting Policies

The income from training courses and the hostel fees etc. had been accounted on cash basis.

2.2.3 Accounting Deficiencies

The following observations were made.

- (a) During the year under review, the expenditure on 02 items of expenditure had been overstated by Rs.194,006 and the expenditure on 06 items had been understated by Rs.189,925 whereas the income from 02 items had been understated by Rs.230,662 and the income had been overstated by Rs.158,677. Meanwhile, 02 items of assets had been understated and the income from accrued interest had been overstated by Rs.73,852 and Rs.3,206 respectively whilst the creditors and the accrued withholding tax of interest income had been understated and overstated by Rs.68,100 and Rs.24,258 respectively and shown in the financial statements.
- (b) The expenditure of Rs.1,294,640 incurred in acquiring 05 items of fixed assets had been inappropriately shown as recurrent expenditure in the financial statements.

2.2.4 Accounts Receivable and Payable

The following are the balances receivable.

- (a) Action had not been taken even during the year under review to recover the sum of Rs.1,484,985 exceeding a period of over 15 years shown as income receivable in the financial statements.
- (b) The balances receivable from various parties for over 09 years revealed as Suspense Account- General in the financial statements amounted to Rs. 219,376. Action had not been taken to recover this even during the year under review.
- (c) The balances receivable from the welfare society which had exceeded a period of 05 years was Rs.59,551. Action had not been taken to recover this even during the year under review.
- (d) Noodles and plastic packages valued at Rs.14,925 had been given to 02 employees of the Institute in 2006 and 2010. This had not been recovered even during the year under review.
- (e) Balances of debtors exceeding 04 years amounted to Rs.177,961. This had not been recovered during the year under review.
- (f) The sum of Rs.157,176 payable to various parties, retention money of Rs.2,203,699 and tender deposits of Rs.133,600 remaining for over one year remained unsettled even during the year under review.

2.2.5 Lack of Evidence for Audit

Four items of assets amounting to Rs.11,596,741 could not be satisfactorily vouched in audit due to lack of register of debtors, register of creditors, detailed schedules and confirmation of balances etc.,

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
(a) Manual of Instructions No.IRD/PAYE/Reg/01 dated 07 March 2011 issued by the Commissioner General of Inland Revenue	The Pay – As- You- Earn tax of Rs.32,386 to be recovered from officers who are subjected to Pay as you Earn Tax had not been recovered and remitted to the Commissioner General of Inland Revenue from the month of April 2011 had been paid by the Institute.
(b) Section 13.5 of the Chapter XXIV of the Establishments Code of the Democratic Socialist Republic of Sri Lanka	The festival advances of Rs.31,594 obtained and to be settled in 10 instalments remained unrecovered for a period ranging 01 to 11 years.
(c) Treasury Circular No.I.A.I./2002/02 dated 28 November 2002	A register of fixed assets had not been maintained with regard to computers and accessories of the Institute costing Rs.5,311,171.

2.2.8 Apparent Irregularities/Irregular Transactions

A Kubota Tractor costing Rs.11,450 shown in the financial statements was not physically existent at the Institute.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, operating activities of the Institute for the year ended 31 December 2011 had resulted in a deficit of Rs. 16,726,883 as compared with the corresponding deficit of Rs. 6,584,695 for the preceding year. The deterioration of Rs.10,142,188 during the year under review compared with that of the previous year was specially attributed to provision of depreciation for fixed assets, write offs as damages caused by flood and expenditure incurred in excess of the provision for “ Api Wawamu Rata Nagamu” Project.

3.2 Analytical Financial Review

The surplus after incurring expenditure from the income including the amount granted for recurrent expenditure totalling Rs.72,683,150 for the year under review was Rs.4,633,242 as compared with the corresponding surplus of Rs.2,158,996 for the preceding year after incurring expenditure from the income including the amount granted for recurrent expenditure totalling Rs.54,930,693. Provision for depreciation of fixed assets written off against the income and the provision for payment of gratuity of the year under review, damages caused to the stock due to flood and the expenditure incurred in excess of the imprest obtained for the “ Api Wawamu Rata Nagamu” Project totalling Rs.18,358,305 had caused the increase in deficit of the year under review as compared with the sum of Rs.7,132,010 written off for depreciation of fixed assets and payment of gratuity of the previous year which had caused the deficit of the previous year.

3.3 Financial Control

The following observations are made.

- (a) The amount obtained by selling plastic packages under the Publicity Programme for usage of plastic packages to minimize damage caused to vegetable and fruits during transportation should be remitted to the Ministry of Agriculture. However, the sum of Rs.36,772,290 obtained by selling plastic packages during the past few years had been retained without being remitted to the Ministry of Agriculture.
- (b) There was a weakness in the procedure relating to the control over identifying and accounting direct remittances to bank accounts. As a result, direct remittances up to November of the year under review aggregating Rs.247,560 had not been identified and accounted for.

4. Operating Review

4.1 Performance

The following are the observations.

- (a) Six years had elapsed since the commencement of the Publicity Programme for usage of plastic packages during transportation of vegetables and fruits. However, the number of packages used by end of the year under review was 161,314 and it was less than 40% of the expected target. Meanwhile, 12,067 packing equipment of 04 categories valued at Rs.6,323,105 remained as balance of stock without being distributed at end of the year under review.
- (b) At the commencement of the year under review, there were 8409 Kg of noodles worth Rs.1,628,970 at the stores. Of these 6006 Kg of stock worth Rs.1,163,506 had been sold for Rs.120,721 as stocks damaged due to flood. Noodles valued at Rs.1,550,507 had been produced during the year. But 54 % of these valued at

Rs.837,829 remained at the stores at end of the year. Income from sale of noodles had dropped by 52% during the year under review as compared with that of the previous year.

- (c) The annual income expected from short term crops was Rs.589,000. During the year 2008, a project to cultivate about 06 acres land belonging to the Institute commenced under the theme “ Api Wawamu Rata Nagamu”. This continued to be operated at a loss due to excessive expenditure on maintenance, lack of proper administration and non receipt of the expected income and the income earned during the year under review was Rs.84,719.
- (d) The Institute had manufactured more than 20 machinery such as Tamarind Pulp Machine, an extensive machine to remove maize seeds and a grader to remove husks from grain from the inception under various research projects and it was – observed that many of them still remained as exhibitory items. Action had not been taken to identify them as fixed assets and bring them to accounts and to confirm the security of their manufacturing rights. Meanwhile, action had not been taken to render the results of researches to the targeted parties and to publicize the related technology by identifying the market.
- (e) The following matters were observed with regard to research projects.
 - i. The Institute had introduced a proper and better effective method to identify research projects through the provisions in the guidelines prepared and approved for identifying research projects for implementation. However, a most effective project had not been implemented with regard to transportation and storage in order to minimize the post harvest losses caused to the targeted beneficiaries.
 - ii. A specific time framework had been approved by the Institute with regard to the implementation of research projects. However, it was unable to complete in time 04 research projects scheduled to be completed in 2011 as a result of not considering the time framework concerned.

- iii. Four out of 21 research projects commenced in 2010 and scheduled to be completed in 2011 had not been completed even by 31 December 2011. Two projects had been abandoned in 2011. Meanwhile, report relating to the “research for improvement of methods of post harvest technology for cultivation big onions” had been released, but, the storage tests relating to it had not been carried out.

(f) Development Projects

The project for introducing and promoting mobile trade stalls for sale of vegetables and fruits had been implemented during the year under review under the national operation “ Api Wawamu Rata Nagamu” aimed at distributing 15 mobile trade stalls after bringing awareness and to train 120 farmers of 07 districts. Only 10 trade stalls had been given and all the beneficiaries had been selected from Kandy District alone. Meanwhile, the project to be completed in 2011 had not been completed even by 21 May 2012.

4.2 Operating Inefficiencies

The following observations are made.

- (a) As a result of not renewing the annual vehicle licences on the due dates, the Institute had paid Rs.4,800 as penalty. However, the amount concerned had not been recovered from the officers responsible for the delay in terms of Financial Regulation 210 (2).
- (b) During the year 2011 a sum of Rs.2,390,645 had been written off as losses caused by flood, as an extra ordinary item. A stock of rice packets worth Rs.569,530 remaining as unusable for the past few years too had been included in it.

4.3 Idle and Under - utilized Assets

Six vehicles of the Institute valued at Rs.931,458 remained idle for a period ranging from 02 to 10 years.

4.4 Staff Administration

The following observations are made.

- (a) The approved cadre of the Institute was 153. There were 77 vacancies at the end of the year under review. The management of the Institute had not taken action to fill these vacancies existing for a long time.
- (b) The Institute had employed two Extension Officers and Field Officers to serve at the Anuradhapura Research and Development Centre in order to propagate the new technology methods identified by the Institute of Post Harvest Technology among manufacturers and traders. During the year under review, a sum of Rs.752,000 had been paid to them as salaries. However, there was no evidence to show that the expected duty had been fulfilled by the officers concerned.

4.5 Vehicle Utilization

A motor vehicle belonging to the Institute, temporarily assigned for duties of the Ministry of Agriculture on 01 August 2011, had not been returned even by 29 May 2012, the date of audit.

5. Accountability and Good Governance

5.1 Corporate Plan

According to the Paragraph 05 of the Public Enterprises Circular No.PED/12 dated 02 June 2003, the operating activities of the past 03 years and the activities of 05 ensuing years of the Institute had not been separately and yearwise included in the Cooperate Plan meant for the fulfilment of mission and vision of the Institute.

5.2 Action Plan

The physical target had not been shown in the Action Plan furnished. As a result, it was unable to examine whether the actual physical target compatible with the financial target had been achieved. According to the Action plan of the year under review, a sum of Rs.2.4252 of million had been allocated for 04 development projects and a sum of Rs.352,800 had been allocated to train extension officers and to prepare visual diskettes in relation to it. But, there was no evidence to show that this had been done.

5.3 Internal Audit

The internal audit had furnished reports by covering up miscellaneous fields of the Institute. However, suitable response had not been shown by the management with regard to those reports. As a result, it was observed that the internal audit had not been utilized as effective administrative technique.

5.4 Audit and Management Committees

According to Paragraph 7.4.1 of the Public Enterprises Circular No.PED/12 dated 02 June 2003, the Audit and Management Committee should meet at least once in 03 months. The number of meetings conducted in 2011 was 03. Action had not been taken in terms of the Circular during the years 2009 and 2010 too.

5.5 Procurement Plan

The Institute had not prepared and furnished a Procurement Plan.

5.6 Budgetary Control

Variances ranging from 31 to 6443 percent were observed between the budgeted and actual values showing that the budget had not been utilized as an effective instrument of management control.

5.7 Tabling of Annual Report

The annual report for the year 2008 and 2009 had been tabled on 07 June 2012. But, the annual report for the year 2010 had not been tabled.

6. Systems and Controls

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

- (a) Fixed Assets
- (b) Accounting
- (c) Administration of Staff and Internal Segregation of Duties
- (d) Debtors and Creditors
- (e) Implementation of Research Projects
- (f) Control Over Vehicles

H.A.S.Samaraweera

Auditor General

**INSTITUTE OF
POST HARVEST TECHNOLOGY**

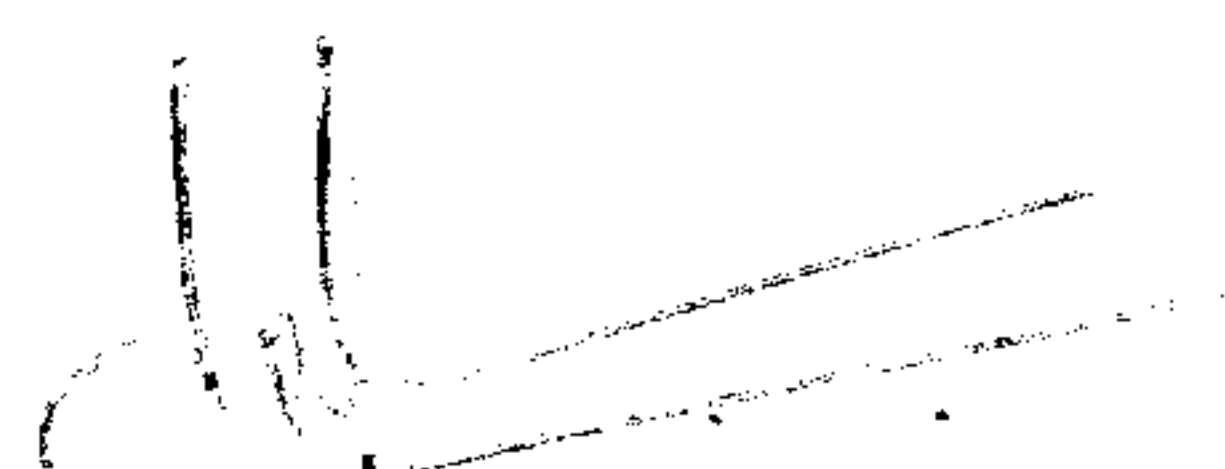
**FINAL ACCOUNTS
2011**

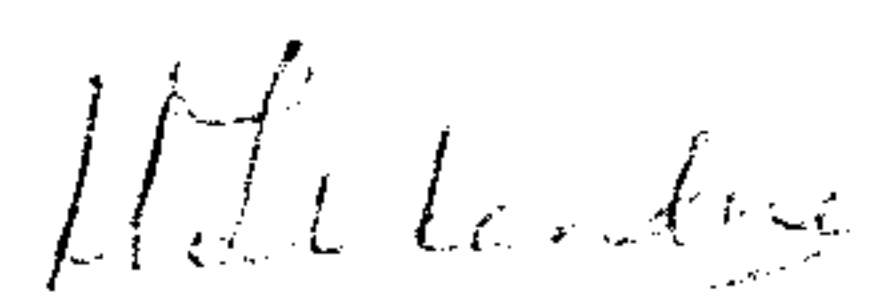
INSTITUTE OF POST HARVEST TECHNOLOGY

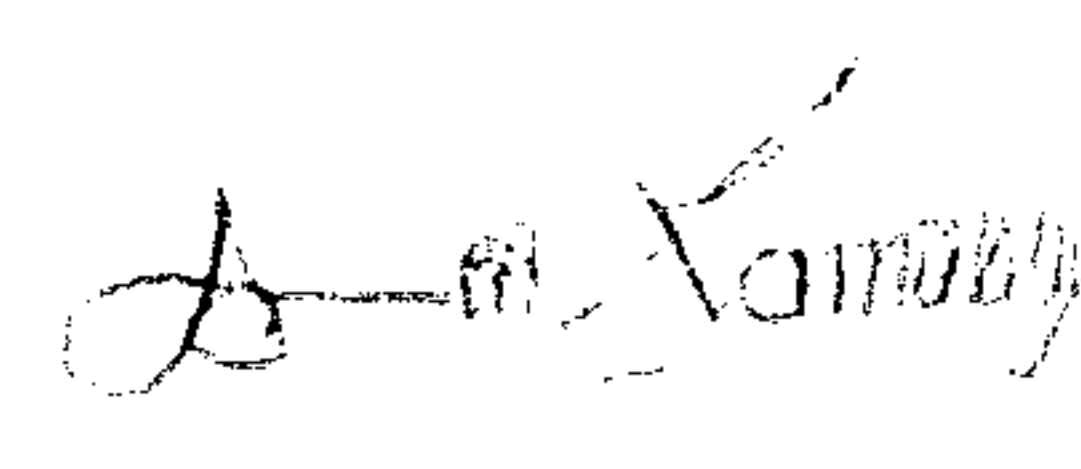
INCOME STATEMENT

FOR THE YEAR ENDED 31 ST DECEMBER 2011

		Year Ended 31 st December 2011 Rs	Year Ended 31 st December 2010 Rs
	Note		
INCOME			
Funds Received from General Treasury	02	41,572,683.00	43,900,000.00
Funds Received from Other Agencies	03	21,768,268.36	1,624,951.70
Other Operating Income	04	9,342,179.36	9,405,745.94
Rice Based FOOD Product Development Plant Noodles Profit & Loss Account	05	(527,103.93)	(1,501,994.79)
		<u>72,156,026.79</u>	<u>53,428,702.85</u>
Administration & Establishment Expenditure	06	86,408,192.62	59,903,711.69
Net Income from Operations before financing cost	07	<u>(14,252,165.83)</u>	<u>(6,475,008.84)</u>
Financing cost	08	(84,072.13)	(109,686.19)
Net Income Before Taxation		<u>(14,336,237.96)</u>	<u>(6,584,695.03)</u>
Taxation	09	-	-
Net Income after Taxation & before Extraordinary Items		<u>(14,336,237.96)</u>	<u>(6,584,695.03)</u>
Extraordinary Items	10	<u>(2,390,644.60)</u>	<u>-</u>
NET INCOME /(LOSS)		<u><u>(16,726,882.56)</u></u>	<u><u>(6,584,695.03)</u></u>

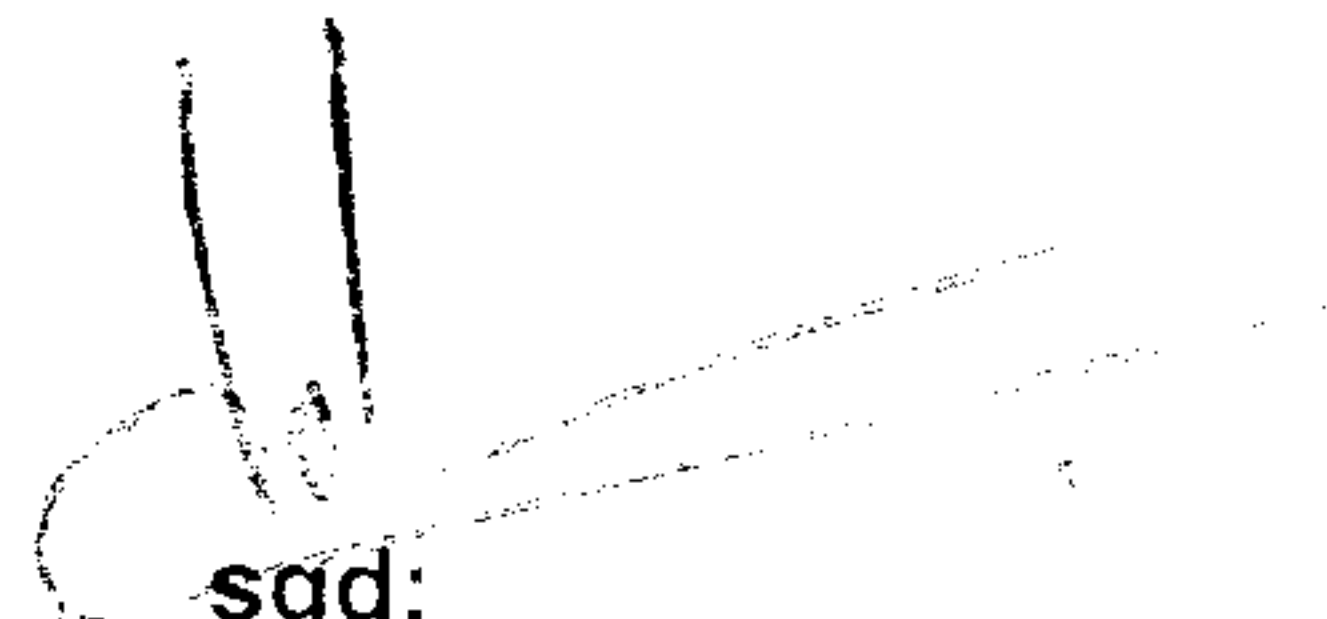

sgd:
Chairman

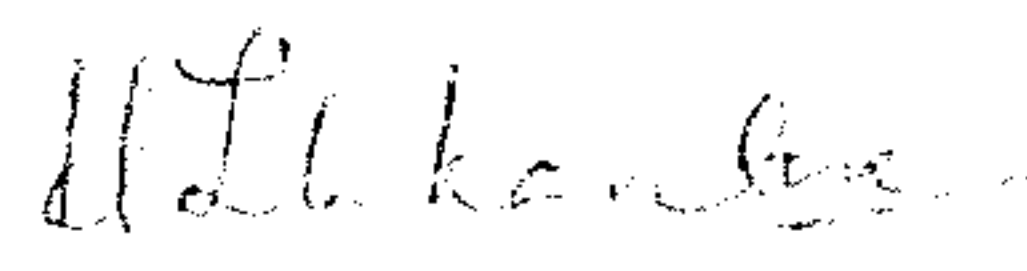

sgd:
Director

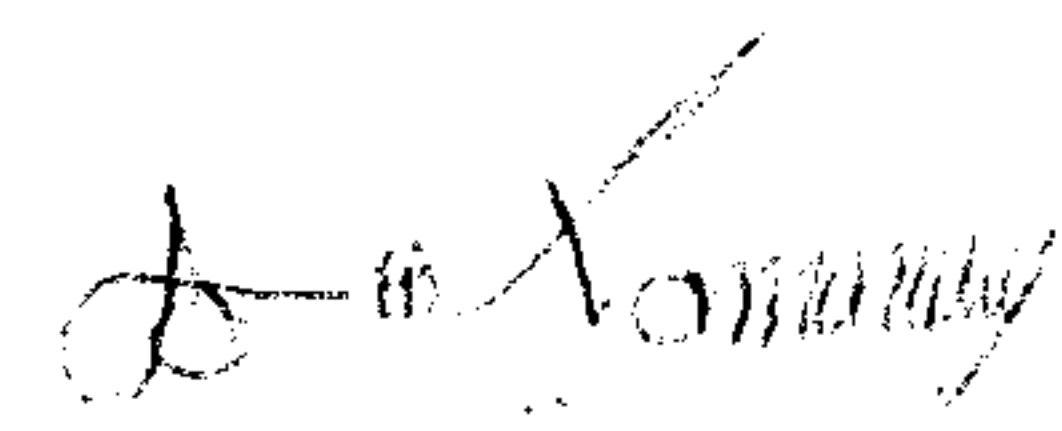

sgd:
Accountant

INSTITUTE OF POST HARVEST TECHNOLOGY
BALANCE SHEET AS AT 31ST DECEMBER 2011

	Note	Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
ASSETS			
NON CURRENT ASSETS			
FIXED ASSETS	11	93,582,198.05	83,608,866.26
INVESTMENT	12	62,748,000.00	62,748,000.00
OTHER NON CURRENT ASSETS	13	7,475,341.61	7,240,108.84
TOTAL NON CURRENT ASSETS		163,805,539.66	153,596,975.10
CURRENT ASSETS	14	41,213,523.19	36,096,337.48
TOTAL ASSETS		205,019,062.85	189,693,312.58
EQUITY & LIABILITIES			
Initiate Capital	15	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	16	30,509,250.00	15,809,250.00
Accumulative Revenue		(36,405,955.83)	(19,911,412.11)
TOTAL NON CURRENT LIABILITIES		145,129,331.61	146,923,875.33
CURRENT LIABILITIES	17	59,889,731.24	42,769,437.25
TOTAL LIABILITIES		205,019,062.85	189,693,312.58


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 2011

		Capital	Accumulative Revenue	Funds Received General Treasury	Total
		Rs.	Rs.	Rs.	Rs.
Balance As at 1.1.2011	J	69,907,594.42	(19,911,412.11)	15,809,250.00	65,805,432.31
Funds Received 2011				14,700,000.00	14,700,000.00
Profit & Loss Account			(16,726,882.56)		(16,726,882.56)
Buildings and Structures	10		(5,225.00)		(5,225.00)
Fixed Assets	20		191,816.00		191,816.00
Intriest	52		5,537.29		5,537.29
With holding tax	54		(553.73)		(553.73)
Intriest	58		5,537.29		5,537.29
With holding tax	60		(553.73)		(553.73)
Intriest	70		4,429.84		4,429.84
With holding tax	72		(442.98)		(442.98)
Intriest	88		1,034.96		1,034.96
Intriest	90		(103.50)		(103.50)
Running expenses vehicles	104		(24,658.00)		(24,658.00)
Machinery	128		77,040.00		77,040.00
Incentives	134		2,000.00		2,000.00
noodels sale	135		(720.00)		(720.00)
Depreciation			(22,799.60)		(22,799.60)
Total		<u>69,907,594.42</u>	<u>(36,405,955.83)</u>	<u>30,509,250.00</u>	<u>64,010,888.59</u>

INSTITUTE OF POST HARVEST TECHNOLOGY

CASH FLOW STATEMENT

FOR THE YEAR ENDED 31 ST DECEMBER 2011

		Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
	Note		
Cash Flow from Operating Activities			
Net Profit before taxation Extraordinary Items		(16,726,882.56)	(6,584,695.03)
Adjustment for :			
Depreciation : Current year		9,223,202.24	6,396,239.21
Gratuity		1,272,454.50	975,047.50
Interest Income		(6,445,044.33)	(7,305,322.44)
Interest Expenses		594,010.11	699,954.58
Bank Charges		84,072.13	109,686.19
Previous Year Adjustment - Profit & Loss Account		232,338.84	(263,907.69)
Operating profit before working capital charges		(11,765,849.07)	(5,972,997.68)
Working capital Changes			
(Increase)/Decrease in non - current Assets	18	(235,237.77)	(2,933,124.31)
(Increase)/Decrease in current Assets	19	(12,045,456.19)	(3,357,102.18)
Increase /(Decrease) in non - current Liability			
Increase /(Decrease) in current Liability	20	17,120,293.99	5,334,826.73
Cash Generated from Operations		(6,926,249.04)	(6,928,397.44)
Non operating activities			
Previous Year Adjustment - Foreign Loan			
Bank Charges		(84,072.13)	(109,686.19)
Gratuity paid		(1,272,454.50)	(975,047.50)
Income Tax Paid			
Net Cash flow/(outflow) from Operating activities : (A)		(8,282,775.67)	(8,013,131.13)
Cash flow from Investing Activities			
Purchase of Fixed Assets		(19,027,517.64)	(1,290,234.36)
Previous Year Adjustment - Fixed Assets		(169,016.39)	(11,775.00)
Net Interest Received		5,851,039.22	6,605,367.86
Net Cash flow/(outflow) from Investing activities (B)		(13,345,494.81)	5,303,358.50
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)		14,700,000.00	0.00
Net Increase/(Decrease)in Cash and Cash Equivalents (A+B+C)		(6,928,270.48)	(2,709,772.63)
Cash & Cash Equivalents at the beginning of period	21	7,844,274.11	10,554,046.74
Cash & Cash Equivalents at the end of period	22	916,003.63	7,844,274.11

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 foreword 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 31.12.2011

2. Main funding source is Treasury fund

2011 Fund received from **General Treasury** as follows
Recurrent – Rs 41,572,683.00

Note	Year Ended 31 st December 2011 Rs	Year Ended 31 st December 2010 Rs
2 Funds Received from General Treasury - Recurrent		
Income and expenditure Account	<u>41,572,683.00</u>	<u>43,900,000.00</u>
3 Funds Received from Other Agencies		
Api wawmu rata nagamu Project	20,359,952.21	1,624,951.70
Govi bara Project	1,340,751.05	
World Food Project	67,565.10	
	<u><u>21,768,268.36</u></u>	<u><u>1,624,951.70</u></u>

		Rs	Rs
4 Other Operating Income			
Rice Sales Profit	4.1	(185,130.00)	(53,662.86)
Machinery Sales	4.3	107,608.52	251,792.97
Hostel Income	4.4	1,202,130.07	854,120.88
Training Program	4.5	1,011,079.79	1,133,196.40
Auditorium fees		334,800.00	153,600.00
House Rent		230,121.64	83,650.00
General Income		214,424.17	114,573.94
Consultancy fees	4.6	122,630.75	87,710.64
Sale of Publications		222,835.00	80,595.00
farm		88,133.50	2,940.00
Vehicle damage Charges		30,971.70	51,570.11
Interest Income	4.7	5,851,039.22	6,605,367.86
Charges -Agreement		19,525.00	8,000.00
Paddy Milling		92,010.00	32,291.00
		9,342,179.36	9,405,745.94

Note**4.1 Rice Sales Profit and Loss Account**

	Rs	Rs
Sales - Rice		579,285.00
Sales - Broken and Brings Rice		10,237.00
Rice Packet Sale		
		589,522.00

Cost of sale**Paddy****Balance as at 1.1.2011**

Stores -Paddy	32,384.12
Form Research -Rice & kurakkan	
Add: Purchases Paddy	526,475.00
	558,859.12

Less :

For Research

558,859.12

damage

558,859.12**Balance as at 31.12.2011**

Stores -Paddy	29,615.12
issue for Rice mill	529,244.00

Paddy**Balance as at 1.1.2011**

Add:Stors	529,244.00
	886,974.00

Less :

For Research

Issue for Rice mill

Paddy milling

886,974.00

Add:Parboling Cost

886,974.00

Balance as at 31.12.2011

Paddy	0.00
Cost of milled Rice	886,974.00

	Rs	Rs
Rice mill Rice		
Balance as at 1.1.2011		
Rice mill Rice	415,093.00	
Broken rice and other	5,247.00	
Received from Rice mill	886,974.00	
	<u>1,307,314.00</u>	
Issued		
For Research		
	<u>1,307,314.00</u>	
Balance as at 31.12.2011		
Rice mill Rice	4,932.00	
Broken rice and other	3,418.00	
	<u>8,350.00</u>	
	1,298,964.00	
Issued - Noodles Project		
Rice & kurakkan		
	<u>0.00</u>	
	1,298,964.00	
Picketing Material		
Balance as at 1.1.2011	569,530.40	
Flood damage	569,530.40	
	<u>0.00</u>	
For Research		
for noodles	<u>524,312.00</u>	
	774,652.00	
Cost of Production - Sale of Rice		<u>774,652.00</u>
Rice Sales Profit / lost		<u>(185,130.00)</u>
4.3 Machinery Manufacturing Trading		
Profit & Loss Account		
Machinery Sales		
Machinery Sales Parboiling Vessels	2,521,550.00	
Machinery Sales	150,000.00	
Other Machinery Sales	14,400.00	
	<u>2,685,950.00</u>	
Machinery Cost Sales		
Raw Material Balance as at 1.1.2011	35,770.40	
Add: Purchases Raw material	228,264.00	
	<u>264,034.40</u>	
For Research		
	<u>264,034.40</u>	
Raw Materials Balance as at 31.12.2011	118,369.92	
Machinery Manufacturing Cost C/F	<u>145,664.48</u>	
Machinery Balance as at 1.1.2011	358,395.00	
Machinery Manufacturing Cost B/F	145,664.48	
	<u>504,059.48</u>	
Add: Purchases of Machineries	2,451,657.00	
	<u>2,955,716.48</u>	
Machinery Balance as at 31.12.2011	377,375.00	
Production Cost -Sale of Machinery	<u>2,578,341.48</u>	<u>2,578,341.48</u>
Profit		<u>107,608.52</u>

Note	Rs	Rs
4.4 Hostel Income		
Income	1,926,193.57	
Expenditure	724,063.50	
		1,202,130.07
4.5 Training Program		
Income	1,614,733.00	
Expenditure	603,653.21	
		1,011,079.79
4.6 Consultancy fees		
Income	189,108.00	
Expenditure	66,477.25	
		122,630.75
4.7 Interest Income		
National Saving Bank 2- 0001- 17-99606 -Kollupitiya	863,351.59	
National Saving Bank 2- 0001- 17-99568 -Kollupitiya	863,351.59	
National Saving Bank 2- 0001- 17-99541 -Kollupitiya	758,333.33	
National Saving Bank 2- 0001- 17-99592 -Kollupitiya	690,681.27	
National Saving Bank 2- 0001- 17-99584 -Kollupitiya	137,250.00	
National Saving Bank 2- 0001- 17-99550 -Kollupitiya	758,333.33	
National Saving Bank 2- 0001- 15-77794 -Kollupitiya	867,853.92	
National Saving Bank 2- 0001- 17-99576 -Kollupitiya	188,581.50	
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	109,239.54	
National Saving Bank 1- 0001- 07-32087-Kollupitiya	961,324.32	6,198,300.39
With Holding Tax		
National Saving Bank 2- 0001- 17-99606 -Kollupitiya	86,335.15	
National Saving Bank 2- 0001- 17-99568 -Kollupitiya	86,335.15	
National Saving Bank 2- 0001- 17-99541 -Kollupitiya	75,833.33	
National Saving Bank 2- 0001- 17-99592 -Kollupitiya	69,068.13	
National Saving Bank 2- 0001- 17-99584 -Kollupitiya	13,725.00	
National Saving Bank 2- 0001- 17-99550 -Kollupitiya	75,833.33	
National Saving Bank 2- 0001- 15-77794 -Kollupitiya	86,785.38	
National Saving Bank 2- 0001- 17-99576 -Kollupitiya	18,858.15	
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	0.00	
National Saving Bank 1- 0001- 07-32087-Kollupitiya	81,236.49	594,010.11
		5,604,290.28
Banks Net Interest Income		
Interest Income Other		
Special advance Interest	7,637.76	
Distress Loan Interest	218,889.03	
Special Loan Interest	20,222.15	246,748.94
		5,851,039.22

INSTITUTE OF POST HARVEST TECHNOLOGY
INCOME STATEMENT
FOR THE YEAR ENDED 31 ST DECEMBER 2011

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

Note
5

	Year Ended 31 st December 2011 Rs	Year Ended 31 st December 2010 Rs
SALES :	771,757.60	1,353,280.00
Less : Taxes	-	-
NET SALES	771,757.60	1,353,280.00
COST OF SALES		
RAW MATERIAL CONSUMED		
Stock as at 1.1. 2011	-	-
Add: Purchases Rice	-	-
Received from Rice Mill	524,312.00	328,483.50
	<u>524,312.00</u>	<u>328,483.50</u>
Less- Rice flour Unit	<u>524,312.00</u>	<u>328,483.50</u>
	<u>524,312.00</u>	<u>328,483.50</u>
Less : Stock as at 31 st December 2011	<u>524,312.00</u>	<u>328,483.50</u>
Direct Expenses		
Packing Material	5.1 261,203.50	121,804.04
Production - Wages	7,404.10	14,027.20
Production - Overtime	20,295.66	11,967.58
Packing - Wages	131,157.90	552,837.06
	<u>944,373.16</u>	<u>1,029,119.38</u>
Factory Over heads		
Electricity	303,105.23	286,170.06
Water	28,517.50	45,443.40
Diesel	5.2 172,600.17	262,148.30
Vegetable Oil		
Repairs to Machinery	526,282.46	147,268.80
Building Maintenance	173,427.00	228,068.30
Traveling		
Printing and Stationery		
Publicity		12,500.00
Sundry	123,224.25	18,290.00
Sales commission	29,472.40	82,797.60
Depreciation	5.3 27,832.93	27,832.93
Cost of Goods Manufactured C / F	2,328,835.10	2,139,638.77
Stock as at 1.1. 2011	1,628,969.98	2,344,606.00
Opening Excess Stocks	2,328,835.10	2,139,638.77
Add : Cost of Goods Manufactured B / F	3,957,805.08	4,484,244.77
Less : Stock as at 31.1.2011	837,829.35	1,628,969.98
Cost of Sales	3,119,975.73	2,855,274.79
Flood Damage	5.4 1,821,114.20	
Real Cost of Sales	1,298,861.53	
GROSS PROFIT / LOSS	(527,103.93)	(1,501,994.79)

Note	Rs	Rs
5.1 Packing Material		
Balance as at 1.1.2011	401,884.66	466,599.78
Add: Purchase	743,323.00	52,056.00
Rice Packets		5,032.92
	1,145,207.66	523,688.70
Less: Rice Flour Mill		
	1,145,207.66	523,688.70
Balance as at 31.12.2011	884,004.16	401,884.68
Noodles Manufacturing Account	261,203.50	121,804.02
5.2 Diesel		
Boiler	172,600.17	259,696.30
Generator	0.00	2,452.00
	172,600.17	262,148.30
5.2.1 Boiler		
Balance as at 1.1.2011	46,186.33	32,332.63
Add: Purchase	321,200.00	273,550.00
	367,386.33	305,882.63
Balance as at 31.12.2011	194,786.16	46,186.33
	172,600.17	259,696.30
5.2.2 Generator		
Balance as at 1.1.2011	34,941.00	37,393.00
Add: Purchase		
	34,941.00	37,393.00
Balance as at 31.12.2011	34,941.00	34,941.00
	0.00	2,452.00
5.3 Depreciation		
Building	27,832.93	27,832.93
Machinery	0.00	0.00
	27,832.93	27,832.93
5.4 Flood Damage		
noodles stock	1,042,785.74	
Packing Material	78,619.00	
Machinery Maintenance	526,282.46	
Building Maintenance	173,427.00	
	1,821,114.20	

Note
6

	Head Office	Research and Development Centre	Year Ended 31 st December 2011	Year Ended 31 st December 2010
	Rs	Rs	Rs	Rs
Administration & Establishment Expenditure				
Salaries & Wages-monthly paid staff	1,985,020.88	26,873,251.04	28,858,271.92	27,601,831.36
Daily paid staff		4,318,210.86	4,318,210.86	3,127,085.67
E.P.F.	119,102.61	2,727,843.41	2,846,946.02	2,710,429.85
E.T.F.	29,775.66	681,960.81	711,736.47	677,720.66
Overtime and Holiday Pay	67,265.29	913,202.72	980,468.01	698,678.06
Other allowance		121,018.25	121,018.25	46,590.00
Incentives			0.00	214,759.32
Gratuity		1,272,454.50	1,272,454.50	975,047.50
Traveling expenses-Domestic	560.00	619,443.39	620,003.39	783,306.54
Traveling expenses-Foreign		164,509.33	164,509.33	19,391.64
Printing and Stationery	29,608.25	376,707.50	406,315.75	414,804.55
Office Requisites, Sundry expenses	149,145.00	742,276.64	891,421.64	1,136,555.14
Staff tea	25,632.82	490,672.00	516,304.82	341,120.50
Consumable for Research projects	6.1	174,883.84	174,883.84	475,059.52
Periodicals, journals and news papers	39,668.50	83,487.00	123,155.50	100,607.00
Running expenses of Hostel and kitchen		246,917.80	246,917.80	233,228.20
Research Projects		1,418,064.31	1,418,064.31	1,394,371.52
Seminars			0.00	29,710.00
Training Programs		508,574.75	508,574.75	308,602.21
Entertainment	42,496.50	157,987.50	200,484.00	265,823.39
Contract Labour	7,646.50	99,800.00	107,446.50	26,350.00
Welfare		1,500.00	1,500.00	0.00
Running expenses vehicles	340,874.30	1,525,930.42	1,866,804.72	1,847,220.05
Vehicles maintenance	448,268.06	2,211,670.51	2,659,938.57	2,414,321.64
Insurance and licenses	212,019.72	334,549.65	546,569.37	313,709.66
Buildings and Structures	18,548.56	1,030,377.23	1,048,925.79	1,082,332.52
Buildings and Structures-Special		491,142.63	491,142.63	0.00
Machinery		620,390.44	620,390.44	615,524.15
Telecommunication	123,611.33	516,623.32	640,234.65	661,560.59
Postal charges	325.00	74,173.50	74,498.50	47,530.00
Electricity		976,673.80	976,673.80	886,263.82
Water,		648,597.01	648,597.01	476,821.02
Rent		138,984.00	138,984.00	381,090.00
Rates and Taxes		172,905.24	172,905.24	92,279.88
Exhibition		691,423.91	691,423.91	859,919.08
Publication			0.00	24,705.61
Human Resources Development		34,982.00	34,982.00	149,903.30
Audit fees		250,000.00	250,000.00	250,000.00
Farm Expenses			0.00	319,754.37

Farm Research Expenses		86,796.40	86,796.40	117,790.00
Research for paddy			0.00	0.00
Promote Packaging Methods and Transportation for the Reduction of Post Harvest Losses			0.00	
Api wawmu rata nagamu Project	6.2	13,074,602.07	13,074,602.07	1,588,263.70
Govi bara funded Project		7,292,350.39	7,292,350.39	36,688.00
World Food funded Project		1,340,751.05	1,340,751.05	
Depreciation		67,565.10	67,565.10	0.00
	6.3	9,195,369.32	9,195,369.32	6,156,961.67
		<u>3,639,568.98</u>	<u>82,768,623.64</u>	<u>59,903,711.69</u>
6.1 Consumable for Research projects		188,373.68		
Diesel - Stock		<u>13,489.84</u>		
		<u>174,883.84</u>		
6.2 Api wawmu rata nagamu Project				
Dayatakerula		1,338,950.00		
Modern village		80,731.50		
Mobile vegetable stole		806,885.52		
Agriculture products (Spaice)		454,643.50		
Fruit based products		237,745.09		
Rice processing village		681,580.00		
Rice mill improvement		1,099,519.00		
Post harvese awarness		446,716.53		
Improvement Storage		1,545,870.25		
Rice based fruit products		599,709.00		
		<u>7,292,350.39</u>		
6.3 Depreciation				
Building		1,527,068.13		
Plant,machinery and equipment		2,134,814.49		
Rice Based Products				
- Building		988,069.25		
- Plant,machinery and equipment		0.00		
Equipment		312,865.14		
Furniture and Fittings		562,302.18		
Electricity & Fittings		73,751.30		
Library Books		128,398.06		
Computers		235,177.00		
Telephone & Fittings		31,214.15		
Vehicles		2,990,265.00		
Farm		211,444.62		
		<u>9,195,369.32</u>		

Note
8

	Head Office	Research and Development Centre	Year Ended 31 st December 2011	Year Ended 31 st December 2010
	Rs	Rs	Rs	Rs
Financial Expenses				
Bank Charges & Taxes		84,072.13	84,072.13	109,686.19
	<u>0.00</u>	<u>84,072.13</u>	<u>84,072.13</u>	<u>109,686.19</u>

9 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.

10.1 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

10.2 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

10 Extraordinary Items**Flood Damage**

noodles stock	1,042,785.74	
Packing Material -Noodlies	78,619.00	
'- Rice Packet	569,530.40	
Machinery Maintenance	526,282.46	
Building Maintenance	173,427.00	<u><u>2,390,644.60</u></u>

Note- flood damage

total setmated value around Rs 10,708,141.23

10.B 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 2011.12.31 at Cost 6,323,105.60

7 Note**7.1** Following deductions have been made when computing the operational profit

Gratuity

E.P.F. - Employee Contributes 10% Employer Contributes 12%

E.T.F. Employer Contributes 3%

Note

11 PROPERTY, PLANT & EQUIPMENT

	Building		Plant, Machinery & Equipment		Equipment	Furniture & Fittings	Electricity & Fittings	Library Books	Computers	Telephone & Fittings	Vehicles	Agro - Farm	Total
Descriptions	Laboratory Workshop Mill Rs	Rice Based Products Food Plants Rs	Office, Laboratory Workshop Mill Rs	Rice Based Products Food Plants Rs	Office, Laboratory Workshop Mill Rs	Office, Laboratory Workshop Mill Rs	Office, Laboratory Workshop Mill Rs	Office, Rs	Office, Rs	Office, Rs	Office, Rs	Office, Rs	Rs
COST													
Balance as at 1.1.2011	57,582,185.29	40,636,087.00	40,972,172.47	29,110,000.00	4,413,958.77	9,794,215.07	1,283,280.37	1,449,757.55	5,321,683.06	317,713.55	13,659,813.82	1,253,934.22	205,794,801.17
Adjustment	0.00				40,810.00	92,180.00	9,800.00	22,971.00	20,250.00	5,805.00	0.00		191,816.00
Additions	3,500,539.88	0.00	0.00	0.00	107,345.00	138,479.00	45,600.00	0.00	347,968.00	41,985.76	14,845,600.00	0.00	19,027,517.64
Disposal													
Balance as at 31.12.2011	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
DEPRECIATION													
Balance as at 1.1.2011	11,218,553.75	20,318,043.50	29,815,621.58	29,109,999.00	3,057,628.45	6,644,310.14	1,056,033.71	994,221.01	5,070,931.81	258,735.55	13,599,366.82	1,042,489.60	122,185,934.92
Adjustment	0.00	0.00	0.00	0.00	4,081.00	9,218.00	980.00	2,297.10	5,062.50	1,161.00	0.00	0.00	22,799.60
Charges for the Year	1,527,068.13	1,015,902.18	2,134,814.49	0.00	312,865.14	562,302.19	73,751.30	128,398.06	235,177.00	31,214.15	2,990,265.00	211,444.62	9,223,202.24
Depreciation on Disposals													
Balance as at 31.12.2011	12,745,621.88	21,333,945.68	31,950,436.07	29,109,999.00	3,374,574.59	7,215,830.33	1,130,765.01	1,124,916.17	5,311,171.31	291,110.70	16,589,631.82	1,253,934.22	131,431,936.76
WRITTEN DOWN VALUE													
Balance as at 31.12.2011	48,337,103.29	19,302,141.33	9,021,736.40	1.00	1,187,539.18	2,809,043.74	207,915.36	347,812.38	378,729.75	74,393.61	11,915,782.00	0.00	93,582,198.05
Balance as at 1.1.2011	46,363,631.54	20,318,043.50	11,156,550.89	1.00	1,356,330.32	3,149,904.93	227,246.66	455,536.54	250,751.25	58,978.00	60,447.00	211,444.62	83,608,866.25

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
11 - A

Descriptions	No	Balance as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2011 Rs	Aggregated Depreciation as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2011 Rs	Balance as at 31.12.2011 Rs	Balance as at 31.12.2010 Rs
Buildings													
Office ,Laboratory Workshop & Mill		5,249,014.85				5,249,014.85	4,461,662.61			131,225.37	4,592,887.98	656,126.87	787,352.24
Boundary wall		1,674,695.65				1,674,695.65	277,718.18			41,867.39	319,585.57	1,355,110.08	1,396,977.47
P.V.C Fence		3,032,578.28				3,032,578.28	151,628.92			75,814.46	227,443.38	2,805,134.90	2,880,949.36
Bachelor Quarters	1	959,227.75				959,227.75	263,787.60			23,980.69	287,768.29	671,459.46	695,440.15
Workshop Extension	1	1,933,992.81				1,933,992.81	326,823.64			48,349.82	375,173.46	1,558,819.35	1,607,169.17
Cycle Hut	1	116,054.52				116,054.52	20,309.53			2,901.36	23,210.89	92,843.63	95,744.99
Twin Quarters	8	7,342,233.72			3,392,527.08	10,734,760.80	1,188,040.86			268,369.02	1,456,409.88	9,278,350.92	6,154,192.86
Room-Partician	1	50,150.00				50,150.00	11,283.75			1,253.75	12,537.50	37,612.50	38,866.25
Twin Quarters Water Tanks	8	484,288.30				484,288.30	72,170.04			12,107.21	84,277.25	400,011.05	412,118.26
Water Tanks	8	190,513.20			108,012.80	298,526.00	29,377.89			7,463.15	36,841.04	261,684.96	161,135.31
Room-Partician -Extinction office	1	97,155.00				97,155.00	14,573.27			2,428.88	17,002.15	80,152.86	82,581.73
Vehicle Garage	1	345,205.60				345,205.60	51,780.84			8,630.14	60,410.98	284,794.62	293,424.76
Office ,Laboratory & Hostal		34,465,618.41				34,465,618.41	4,157,966.81			861,640.46	5,019,607.27	29,446,011.13	30,307,651.60
Stage		402,260.00				402,260.00	50,282.50			10,056.50	60,339.00	341,921.00	351,977.50
Cantina		689,103.60				689,103.60	86,137.95			17,227.59	103,365.54	585,738.06	602,965.65
Road Development		550,093.60				550,093.60	55,009.36			13,752.34	68,761.70	481,331.90	495,084.24
Sub Total		57,582,185.29	0.00	0.00	3,500,539.88	61,082,725.17	11,218,553.75	0.00	0.00	1,527,068.13	12,745,621.88	48,337,103.28	46,363,631.54
Buildings													
Rice Based Food Products Plant		40,636,087.00				40,636,087.00	20,318,043.50			1,015,902.18	21,333,945.68	19,302,141.33	20,318,043.51
Sub Total		40,636,087.00	0.00	0.00	0.00	40,636,087.00	20,318,043.50	0.00	0.00	1,015,902.18	21,333,945.68	19,302,141.33	20,318,043.51
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	361,040.67			32,821.88	393,862.55	43,762.46	76,584.33
Paper Cutter	1	22,000.00				22,000.00	18,150.00			1,650.00	19,800.00	2,200.00	3,850.00
Typewriter (English)	2	82,756.00				82,756.00	54,837.54			6,206.70	61,044.24	21,711.76	27,918.46
Gas Welding Set	1	37,500.00				37,500.00	30,937.50			2,812.50	33,750.00	3,750.00	6,562.50
Spot Welding plant	1	200,000.00				200,000.00	150,000.00			15,000.00	165,000.00	35,000.00	50,000.00
Grass cutter	1	76,500.00				76,500.00	63,112.50			5,737.50	68,850.00	7,650.00	13,387.50
Laboratory waterde-ionizer	1	192,404.44				192,404.44	158,733.64			14,430.33	173,163.97	19,240.47	33,670.80
Auto clave	1	774,675.00				774,675.00	639,106.92			58,100.63	697,207.55	77,467.46	135,568.08
UV- lamp	1	70,279.11				70,279.11	57,980.23			5,270.93	63,251.16	7,027.95	12,298.88
Facsimile machine	4	122,093.75				122,093.75	76,094.52			9,157.03	85,251.55	36,842.20	45,999.23
Multimedia Projector	2	702,375.00				702,375.00	331,481.29			52,678.13	384,159.42	318,215.59	370,893.71
Photocopy machine	5	720,500.00				720,500.00	401,512.50			54,037.50	455,550.00	264,950.00	318,987.50
Emboss Seal	1	28,125.00				28,125.00	21,093.78			2,109.38	23,203.16	4,921.85	7,031.22
Refrigerator	1	49,504.00				49,504.00	37,128.00			3,712.80	40,840.80	8,663.20	12,376.00
Bread cutter	1	57,500.00				57,500.00	43,125.00			4,312.50	47,437.50	10,062.50	14,375.00
Vacuum Sealer	1	180,000.00				180,000.00	135,000.00			13,500.00	148,500.00	31,500.00	45,000.00
Colour soarting machine	1	5,736,788.83				5,736,788.83	4,302,591.53			430,259.16	4,732,850.69	1,003,938.14	1,434,197.30
Uprighter Freezer	2	75,000.00				75,000.00	56,250.00			5,625.00	61,875.00	13,125.00	18,750.00
Refrigerator	5	167,900.01				167,900.01	109,162.50			12,592.50	121,755.00	46,145.01	58,737.51
Freezer	2	79,000.00				79,000.00	59,250.00			5,925.00	65,175.00	13,825.00	19,750.00
Typewriter (Sinhala)	3	78,813.00				78,813.00	59,109.77			5,910.98	65,020.75	13,792.26	19,703.23
Mycro soil Hot air oven	1	75,960.00				75,960.00	51,273.00			5,697.00	56,970.00	18,990.00	24,687.00
Universal oven	1	184,500.00				184,500.00	124,537.50			13,837.50	138,375.00	46,125.00	59,962.50
Laboratory Oven	2	342,000.00				342,000.00	230,850.00			25,650.00	256,500.00	85,500.00	111,150.00
Rotary Evaporator	3	559,776.00				559,776.00	377,848.80			41,983.20	419,832.00	139,944.00	181,927.20
P.H. meter - hand held	4	187,264.00				187,264.00	126,403.20			14,044.80	140,448.00	46,816.00	60,860.80
- Bench Top	3	181,518.00				181,518.00	122,524.65			13,613.85	136,138.50	45,379.50	58,993.35
Gass Analyser	1	4,250,400.00				4,250,400.00	2,231,460.00			318,780.00	2,550,240.00	1,700,160.00	2,018,940.00
Balance C/F		28,180,736.40	0.00	0.00	0.00	28,180,736.40	22,938,574.30	0.00	0.00	1,175,456.79	24,114,031.09	4,066,705.31	5,242,162.10

Note
11 - A

Descriptions	No	Balance as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2011 Rs	Aggregated Depreciation as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2011 Rs	Balance as at 31.12.2011 Rs	Balance as at 31.12.2010 Rs
Plant, machinery & Equipment Balance B/F		28,180,736.40	0.00	0.00	0.00	28,180,736.40	22,938,574.30	0.00	0.00	1,175,456.79	24,114,031.09	4,066,705.31	5,242,162.10
Heating mantles - 500ml	6	183,816.00				183,816.00	124,075.75			13,786.20	137,861.95	45,954.05	59,740.25
Heating mantles -1000ml	6	193,248.00				193,248.00	130,442.40			14,493.60	144,936.00	48,312.00	62,805.60
Heating mantles - 2000ml	3	131,088.00				131,088.00	88,484.40			9,831.60	98,316.00	32,772.00	42,603.60
Soxhelet Extraction set - 1000ml	6	156,600.00				156,600.00	105,705.00			11,745.00	117,450.00	39,150.00	50,895.00
Soxhelet Extraction set - 2000ml	3	105,750.00				105,750.00	71,381.25			7,931.25	79,312.50	26,437.50	34,368.75
Laboratory Balance	7	1,967,760.00				1,967,760.00	1,328,238.00			147,582.00	1,475,820.00	491,940.00	639,522.00
Colour meter	1	105,750.00				105,750.00	71,381.25			7,931.25	79,312.50	26,437.50	34,368.75
Bush cutter	1	41,970.00				41,970.00	28,329.75			3,147.75	31,477.50	10,492.50	13,640.25
Welding transformer	1	204,975.00				204,975.00	138,358.15			15,373.13	153,731.28	51,243.73	66,616.85
Rice Polishing machine	1	660,697.42				660,697.42	445,970.76			49,552.31	495,523.07	165,174.35	214,726.66
Computer pendriver	1	9,900.00				9,900.00	6,682.50			742.50	7,425.00	2,475.00	3,217.50
Pentrometer	2	62,100.00				62,100.00	41,917.50			4,657.50	46,575.00	15,525.00	20,182.50
Laboratory waterbath wih racks	1	89,200.00				89,200.00	60,210.00			6,690.00	66,900.00	22,300.00	28,990.00
Stereop zoom microscope	1	88,000.00				88,000.00	59,400.00			6,600.00	66,000.00	22,000.00	28,600.00
Microscope with Photography & Display	1	164,007.00				164,007.00	110,704.76			12,300.53	123,005.29	41,001.72	53,302.24
Microsps	1	104,700.00				104,700.00	70,672.50			7,852.50	78,525.00	26,175.00	34,027.50
Colony Counter	1	76,800.00				76,800.00	51,840.00			5,760.00	57,600.00	19,200.00	24,960.00
Brookfield	1	258,199.20				258,199.20	174,284.45			19,364.94	193,649.39	64,549.81	83,914.75
Turbidity Meter	1	78,935.00				78,935.00	47,361.01			5,920.13	53,281.14	25,653.87	31,573.99
Calibration kit set	1	17,220.00				17,220.00	10,332.00			1,291.50	11,623.50	5,596.50	6,888.00
Sample cuvettes	1	4,990.00				4,990.00	2,994.00			374.25	3,368.25	1,621.75	1,996.00
Shaker	1	220,050.00				220,050.00	132,030.00			16,503.75	148,533.75	71,516.25	88,020.00
Moisture Balance	2	527,046.00				527,046.00	316,227.60			39,528.45	355,756.05	171,289.95	210,818.40
Cooled Fncubator	1	146,070.00				146,070.00	87,642.00			10,955.25	98,597.25	47,472.75	58,428.00
Automatic Kjeldhal Apparator	1	686,070.00				686,070.00	411,642.00			51,455.25	463,097.25	222,972.75	274,428.00
Melting Point Apparator	1	198,562.50				198,562.50	119,137.52			14,892.19	134,029.71	64,532.79	79,424.98
Dryer	1	250,000.00				250,000.00	150,000.00			18,750.00	168,750.00	81,250.00	100,000.00
Drive Gear Motor	1	245,240.00				245,240.00	128,751.00			18,393.00	147,144.00	98,096.00	116,489.00
REAP - Stark moisture detector receiver	1	32,256.00				32,256.00	16,934.40			2,419.20	19,353.60	12,902.40	15,321.60
Sieve Shaker	1	685,400.00				685,400.00	205,620.00			51,405.00	257,025.00	428,375.00	479,780.00
Rubber Roll Sheller	1	255,500.00				255,500.00	76,650.00			19,162.50	95,812.50	159,687.50	178,850.00
Fume Cupboard	1	500,319.00				500,319.00	150,095.71			37,523.93	187,619.65	312,699.36	350,223.29
Abrasive flour mill	1	242,300.00				242,300.00	54,517.50			18,172.50	72,690.00	169,610.00	187,782.50
power hack show	1	423,652.17				423,652.17	63,547.82			31,773.91	95,321.73	328,330.44	360,104.35
Whiteness meter	2	86,400.00				86,400.00	51,840.00			6,480.00	58,320.00	28,080.00	34,560.00
Welding plant	1	41,650.00				41,650.00	24,990.00			3,123.75	28,113.75	13,536.25	16,660.00
Digital Thermometer	2	18,924.00				18,924.00	11,354.40			1,419.30	12,773.70	6,150.30	7,569.60
Dial Thermometer	2	12,000.00				12,000.00	7,200.00			900.00	8,100.00	3,900.00	4,800.00
Turbine ventilation	1	16,800.00				16,800.00	10,080.00			1,260.00	11,340.00	5,460.00	6,720.00
Thermometers	4	352,500.00				352,500.00	198,562.50			26,437.50	225,000.00	127,500.00	153,937.50
Moisture meter	6	146,000.96				146,000.96	33,000.06			10,950.07	43,950.14	102,050.82	113,000.90
Amplly meter	1	6,275.00				6,275.00	3,765.01			470.63	4,235.64	2,039.37	2,509.99
Rice Flour Machine	1	100,623.00				100,623.00	60,373.80			7,546.73	67,920.53	32,702.48	40,249.20
Glass Polisher	1	377,187.50				377,187.50	226,312.48			28,289.06	254,601.54	122,585.96	150,875.02
Gass Analyser	1	650,800.00				650,800.00	341,670.00			48,810.00	390,480.00	260,320.00	309,130.00
Digital fruit firmness tester	1	228,800.00				228,800.00	120,120.00			17,160.00	137,280.00	91,520.00	108,680.00
Dial Thermometer & Probes	1,16	220,800.00				220,800.00	115,920.00			16,560.00	132,480.00	88,320.00	104,880.00
Water Analys meter	1	261,625.00				261,625.00	117,731.25			19,621.88	137,353.12	124,271.89	143,893.75
Solar Dryer	1	405,122.56				405,122.56	182,305.14			30,384.19	212,689.33	192,433.23	222,817.42
Pest Control	1	131,372.15				131,372.15	59,117.43			9,852.91	68,970.34	62,401.81	72,254.72
Rice flacking Machine		616,384.61				616,384.61	231,144.23			46,228.85	277,373.08	339,011.53	385,240.38
Sub Total		40,972,172.47	0.00	0.00	0.00	40,972,172.47	29,815,621.58	0.00	0.00	2,134,814.49	31,950,436.08	9,021,736.39	11,156,550.89
Rice Based Food Products Plant		29,110,000.00				29,110,000.00	29,109,999.00				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
11 - A

Descriptions	No	Balance as at 1.1.2011	Adjustment to Opening Balance	Disposed	Additions During the Year	Balance as at 31.12.2011	Aggregated Depreciation as at 1.1.2011	Adjustment to Opening Balance	Disposed	Depreciation for the Year	Aggregated Depreciation as at 31.12.2011	Balance as at 31.12.2011	Balance as at 31.12.2010
		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				51,377.84	0.00	0.00
Stores		2,600.00				2,600.00	2,600.00				2,600.00	0.00	0.00
Weighing machine	4	2,550.00				2,550.00	2,550.00				2,550.00	0.00	0.00
Moisture meter	84	237,676.56				237,676.56	237,676.56				237,676.56	0.00	0.00
Stainless Steel Vessel Plantas	10,10	8,550.00				8,550.00	7,790.00			190.00	7,980.00	570.00	760.00
Kitchen knife, Spoons, Chopping Board	6,25,3	9,092.00				9,092.00	8,292.00			200.00	8,492.00	600.00	800.00
Dial Thermometer	6	8,100.00				8,100.00	8,100.00				8,100.00	0.00	0.00
National Gas cooker	4	17,000.00				17,000.00	17,000.00				17,000.00	0.00	0.00
Bottle Sealer	1	2,250.00				2,250.00	2,250.00				2,250.00	0.00	0.00
Poly Sealer	2	4,395.00				4,395.00	3,397.00			249.50	3,646.50	748.50	998.00
Plastic Vessel	11	3,760.00				3,760.00	3,760.00				3,760.00	0.00	0.00
Electric Kettle -	3	13,540.00				13,540.00	5,615.00			1,065.00	6,680.00	6,860.00	7,925.00
Food Processign machine	1	117,450.00				117,450.00	117,450.00				117,450.00	0.00	0.00
Food Processer	2	25,000.00				25,000.00	25,000.00				25,000.00	0.00	0.00
Deep fryer	2	19,000.00				19,000.00	19,000.00				19,000.00	0.00	0.00
Electric Oven	4	31,790.00				31,790.00	23,594.00			1,584.00	25,178.00	6,612.00	8,196.00
Kitchen Grinder	2	4,392.00				4,392.00	4,392.00				4,392.00	0.00	0.00
Kitchen Beeter	2	3,240.00				3,240.00	3,240.00				3,240.00	0.00	0.00
Cooking pot / Pans	2	3,600.00				3,600.00	3,600.00				3,600.00	0.00	0.00
Cutlery set	8	5,472.00				5,472.00	5,472.00				5,472.00	0.00	0.00
Kenwood Food Processer	1	36,300.00				36,300.00	36,300.00				36,300.00	0.00	0.00
Gas Silinder & House and others	2	30,448.00				30,448.00	30,448.00				30,448.00	0.00	0.00
Gas Cookers with tube	8,7	17,650.00	19,750.00			37,400.00	11,530.00	1,975.00		3,140.00	16,645.00	20,755.00	6,120.00
Microvave Oven	2	23,800.01				23,800.01	23,800.00				23,800.00	0.00	0.00
Pressure Cooker	2	6,350.00				6,350.00	6,350.00				6,350.00	0.00	0.00
Caste Recorder	1	3,720.00				3,720.00	3,720.00				3,720.00	0.00	0.00
Gas Silinders	5	17,299.00				17,299.00	15,569.10			1,729.90	17,299.00	0.00	1,729.90
Burner	1	3,850.00				3,850.00	3,465.00			385.00	3,850.00	0.00	385.00
Moisture Meter	1	25,875.00				25,875.00	23,287.50			2,587.50	25,875.00	0.00	2,587.50
Emergency light with table lamp	1	4,000.00				4,000.00	3,600.00			400.00	4,000.00	0.00	400.00
Codiang machine	1	10,811.25				10,811.25	9,730.13			1,081.13	10,811.25	0.00	1,081.12
Calculator	11	16,582.50				16,582.50	13,201.27			1,658.25	14,859.52	1,722.98	3,381.23
Digital Multimeter & power controier	1	44,050.00				44,050.00	39,645.00			4,405.00	44,050.00	0.00	4,405.00
Time machine - small	1	34,000.00				34,000.00	30,600.00			3,400.00	34,000.00	0.00	3,400.00
- large	2	84,000.00				84,000.00	75,600.00			8,400.00	84,000.00	0.00	8,400.00
Cellular Phone	1	26,700.00				26,700.00	24,030.00			2,670.00	26,700.00	0.00	2,670.00
Stapler	4	4,954.00				4,954.00	4,458.60			495.40	4,954.00	0.00	495.40
Wall clock	4	8,159.00				8,159.00	2,609.60			815.90	3,425.50	4,733.50	5,549.40
Digital clock	1	7,340.00				7,340.00	1,468.00			734.00	2,202.00	5,138.00	5,872.00
Puncher	2	580.00				580.00	522.00			58.00	580.00	0.00	58.00
Oasis quat sntzer	1	6,727.50				6,727.50	6,054.75			672.75	6,727.50	0.00	672.75
Micro - Chior	1	6,750.00				6,750.00	6,075.00			675.00	6,750.00	0.00	675.00
Digital Themeter	4	112,769.50				112,769.50	48,686.85			11,276.95	59,963.80	52,805.70	64,082.65
Immersion probe	2	7,510.00				7,510.00	6,759.00			751.00	7,510.00	0.00	751.00
Spear temperature probes	2	10,124.00				10,124.00	9,111.60			1,012.40	10,124.00	0.00	1,012.40
Thermometers - General 10 - 360	3	1,950.00				1,950.00	1,755.00			195.00	1,950.00	0.00	195.00
Thermometers - General 10 - 250	3	1,950.00				1,950.00	1,755.00			195.00	1,950.00	0.00	195.00
Thermometers - General 10 - 110	3	1,665.00				1,665.00	1,498.50			166.50	1,665.00	0.00	166.50
Thermometers - Murcury enclosed scale	1	5,900.00				5,900.00	5,310.00			590.00	5,900.00	0.00	590.00
Drill Machine	1	40,750.00				40,750.00	16,300.00			4,075.00	20,375.00	20,375.00	24,450.00
Cutoff Machine	1	64,032.49				64,032.49	25,613.00			6,403.25	32,016.25	32,016.24	38,419.49
Air Babai Selear	1	14,500.00				14,500.00	5,800.00			1,450.00	7,250.00	7,250.00	8,700.00
Blenders	4	7,200.00			13,499.00	20,699.00	2,880.00			2,069.90	4,949.90	15,749.10	4,320.00
Pricing Machine	1	1,950.00				1,950.00	780.00			195.00	975.00	975.00	1,170.00
Balance C/F		1,261,082.65	19,750.00	0.00	13,499.00	1,294,331.65	1,050,469.30	1,975.00	0.00	64,976.32	1,117,420.62	176,911.02	210,613.34

Note
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Descriptions	No	Balance as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2011 Rs	Aggregated Depreciation as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2011 Rs	Balance as at 31.12.2011 Rs	Balance as at 31.12.2010 Rs
Equipments													
Balance C/F		1,261,082.65	19,750.00	0.00	15,499.00	1,294,331.65	1,050,469.30	1,975.00	0.00	64,976.32	1,117,420.62	176,911.02	210,613.34
Timer Programable	3	8,370.00				8,370.00	7,533.00			837.00	8,370.00	0.00	837.00
Water distill plant	1	29,700.00				29,700.00	26,730.00			2,970.00	29,700.00	0.00	2,970.00
Refractormeter Fan	2	74,870.00				74,870.00	67,383.00			7,487.00	74,870.00	0.00	7,487.00
Ebiliometer with Roplaement Thermome	1	54,900.00				54,900.00	49,410.00			5,490.00	54,900.00	0.00	5,490.00
Bunsan burner	6	2,700.00				2,700.00	2,430.00			270.00	2,700.00	0.00	270.00
Electric Bunsan burner	1	43,353.60				43,353.60	39,018.24			4,335.36	43,353.60	0.00	4,335.36
Heidolpeh	1	69,669.60				69,669.60	62,702.64			6,966.96	69,669.60	0.00	6,966.96
Allpeeh 7645 rectangular	3	40,924.80				40,924.80	36,832.30			4,092.48	40,924.78	0.02	4,092.50
Allpeeh 7550 rectangular	10	101,376.00				101,376.00	91,238.40			10,137.60	101,376.00	0.00	10,137.60
Duplo Spare Drum of	1	104,500.00				104,500.00	94,050.00			10,450.00	104,500.00	0.00	10,450.00
Food Dehydrator	1	1,494.99				1,494.99	1,345.50			149.49	1,494.99	0.00	149.49
Airconditioners	17	1,262,390.41				1,262,390.41	856,576.42			64,585.65	921,162.07	341,228.34	405,813.99
Hot Plate	2	60,876.00				60,876.00	48,700.80			6,087.60	54,788.40	6,087.60	12,175.20
Cooking pot / Pans		4,750.00				4,750.00	3,800.00			475.00	4,275.00	475.00	950.00
Water Filtor	9	37,650.00				37,650.00	19,560.00			3,765.00	23,325.00	14,325.00	18,090.00
T V buster	1	2,971.00				2,971.00	2,376.80			297.10	2,673.90	297.10	594.20
Sealers	2	5,990.00				5,990.00	2,956.00			599.00	3,555.00	2,435.00	3,034.00
Calculator	3	4,783.00				4,783.00	3,466.90			478.30	3,945.20	837.80	1,316.10
Micro Phone stand	1	1,525.00				1,525.00	1,220.00			152.50	1,372.50	152.50	305.00
Micro Phone	1	510.00				510.00	408.00			51.00	459.00	51.00	102.00
Thermometer	3	25,499.97				25,499.97	20,399.99			2,550.00	22,949.99	2,549.98	5,099.98
Chromatography columns	1	39,620.00				39,620.00	31,696.00			3,962.00	35,658.00	3,962.00	7,924.00
Staining Trough Glass	1	1,980.00				1,980.00	1,584.00			198.00	1,782.00	198.00	396.00
Mouse	1	650.00				650.00	520.00			65.00	585.00	65.00	130.00
Lamp	1	1,794.00				1,794.00	1,435.20			179.40	1,614.60	179.40	358.80
Magi Boards	5	5,790.00			2,280.00	8,070.00	3,783.00			807.00	4,590.00	3,480.00	2,007.00
Over head Progector	4	107,410.00				107,410.00	58,862.75			10,741.00	69,603.75	37,806.25	48,547.25
Cash Box	3	3,700.00			2,800.00	6,500.00	1,415.00			650.00	2,065.00	4,435.00	2,285.00
Tape	1	575.00				575.00	402.50			57.50	460.00	115.00	172.50
Water Pump	6	204,205.00				204,205.00	73,681.50			20,420.50	94,102.00	110,103.00	130,523.50
Vacuum cleaner	1	7,700.00				7,700.00	5,390.00			770.00	6,160.00	1,540.00	2,310.00
Wall Fans	5	11,900.00			5,800.00	17,700.00	8,330.00			1,770.00	10,100.00	7,600.00	3,570.00
Fans	6	40,850.00			4,890.00	45,740.00	6,910.00			4,574.00	11,484.00	34,256.00	33,940.00
Stapelers	3	13,700.00				13,700.00	2,740.00			1,370.00	4,110.00	9,590.00	10,960.00
Tape Recoder	3	3,450.00			9,990.00	13,440.00	2,415.00			1,344.00	3,759.00	9,681.00	1,035.00
Kee Box	1	2,500.00				2,500.00	1,750.00			250.00	2,000.00	500.00	750.00
CARP- Blender	1	15,093.75				15,093.75	10,565.61			1,509.38	12,074.99	3,018.77	4,528.14
Pressure Cooker	1	3,633.00				3,633.00	2,543.10			363.30	2,906.40	726.60	1,089.90
Kitchen Scalar	1	475.00				475.00	285.00			47.50	332.50	142.50	190.00
Hand mixer	3	7,225.00				7,225.00	3,575.00			722.50	4,297.50	2,927.50	3,650.00
Over head Progector Screen	1	4,600.00				4,600.00	2,760.00			460.00	3,220.00	1,380.00	1,840.00
Hand Light	2	2,900.00				2,900.00	1,450.00			290.00	1,740.00	1,160.00	1,450.00
Grass Cutter	3	49,000.00				49,000.00	14,300.00			4,900.00	19,200.00	29,800.00	34,700.00
Rice Flour Product Machine	1	11,582.00				11,582.00	5,791.00			1,158.20	6,949.20	4,632.80	5,791.00
Incubator	1	172,360.00				172,360.00	172,360.00				172,360.00	0.00	0.00
Weighing machine	2	66,000.00				66,000.00	26,400.00			6,600.00	33,000.00	33,000.00	39,600.00
Rice Cookers	3	7,700.00	13,900.00			21,600.00	3,080.00	1,390.00		2,160.00	6,630.00	14,970.00	4,620.00
Datestamp	1	6,670.00				6,670.00	2,668.00			667.00	3,335.00	3,335.00	4,002.00
Balance C/F		3,992,949.77	33,650.00	0.00	39,259.00	4,065,858.77	2,935,299.95	3,365.00	0.00	263,239.64	3,201,904.59	863,954.17	1,057,649.81

Descriptions	No	Balance as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2011 Rs	Aggregated Depreciation as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2011 Rs	Balance as at 31.12.2011 Rs	Balance as at 31.12.2010 Rs
Equipments													
Balance C/F		3,992,949.77	33,650.00	0.00	39,259.00	4,065,858.77	2,935,299.95	3,365.00	0.00	263,239.64	3,201,904.59	863,954.17	1,057,649.81
Floor Polisher	1	21,826.00				21,826.00	6,547.80			2,182.60	8,730.40	13,095.60	15,278.20
Buffer set with spoon	2	98,120.00				98,120.00	29,436.00			9,812.00	39,248.00	58,872.00	68,684.00
Balance	2	4,600.00				4,600.00	1,195.00			460.00	1,655.00	2,945.00	3,405.00
Ventilator	1	17,000.00				17,000.00	5,100.00			1,700.00	6,800.00	10,200.00	11,900.00
Exhaust fan	1	12,000.00				12,000.00	3,600.00			1,200.00	4,800.00	7,200.00	8,400.00
Rechargable Toach	1	2,375.00				2,375.00	712.50			237.50	950.00	1,425.00	1,662.50
Juck	2	980.00				980.00	294.00			98.00	392.00	588.00	686.00
Tray	1	990.00				990.00	297.00			99.00	396.00	594.00	693.00
Tee cups	12	2,100.00				2,100.00	630.00			210.00	840.00	1,260.00	1,470.00
Spoon	2	110.00				110.00	33.00			11.00	44.00	66.00	77.00
Sound system	1	160,000.00				160,000.00	48,000.00			16,000.00	64,000.00	96,000.00	112,000.00
Stickes printer	1	12,500.00				12,500.00	2,250.00			1,250.00	3,500.00	9,000.00	10,250.00
poli celear	1	37,100.00				37,100.00	3,710.00			3,710.00	7,420.00	29,680.00	33,390.00
Flour mixture	1				2,500.00	2,500.00				250.00	250.00	2,250.00	0.00
mixture	1				50,736.00	50,736.00				5,073.60	5,073.60	45,662.40	0.00
stinihopper machine	1				2,300.00	2,300.00				230.00	230.00	2,070.00	0.00
table hand grinder	1				12,550.00	12,550.00				1,255.00	1,255.00	11,295.00	0.00
brix hydrometer	1		3,360.00			3,360.00		336.00		336.00	672.00	2,688.00	0.00
charger torch	2		3,800.00			3,800.00		380.00		380.00	760.00	3,040.00	0.00
Promote Packaging Methods Project													
Electrical Equipment		51,308.00				51,308.00	20,523.20			5,130.80	25,654.00	25,654.00	30,784.80
Balance		4,413,958.77	40,810.00	0.00	107,345.00	4,562,113.77	3,057,628.45	4,081.00	0.00	312,865.14	3,374,574.59	1,187,539.17	1,356,330.31

Note
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Descriptions	No	Balance as at 1.1.2011	Adjustment to Opening Balance	Disposed	Additions During the Year	Balance as at 31.12.2011	Aggregated Depreciation as at 1.1.2011	Adjustment to Opening Balance	Disposed	Depreciation for the Year	Aggregated Depreciation as at 31.12.2011	Balance as at 31.12.2011	Balance as at 31.12.2010
		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Furniture & Fittings													
Office Laboratory Workshop & Mill		3,912,102.58				3,912,102.58	3,912,102.58				3,912,102.58	0.00	0.00
Office Equipment - Conference Table	1	42,000.00				42,000.00	42,000.00				42,000.00	0.00	0.00
Office Equipment - Conference Chairs	25	118,750.00				118,750.00	118,750.00				118,750.00	0.00	0.00
At 1400 writing table	2	15,149.91				15,149.91	15,149.91				15,149.91	0.00	0.00
At 135 Side returns	2	11,362.44				11,362.44	11,362.44				11,362.44	0.00	0.00
At S2 drawers	2	7,574.97				7,574.97	7,574.97				7,574.97	0.00	0.00
500 TGA chairs	2	15,926.85				15,926.85	15,926.85				15,926.85	0.00	0.00
6404 EA V/chairs	4	13,207.62				13,207.62	13,207.62				13,207.62	0.00	0.00
Utility witing table	2	15,981.23				15,981.23	15,981.23				15,981.23	0.00	0.00
Utility armchairs	2	4,721.73				4,721.73	4,721.73				4,721.73	0.00	0.00
Utility chairs W/outarms	4	9,080.25				9,080.25	9,080.25				9,080.25	0.00	0.00
Standard Steel cupboard	1	6,658.78				6,658.78	6,658.78				6,658.78	0.00	0.00
Filling cabinet - for orowers	3	22,950.00				22,950.00	22,950.00				22,950.00	0.00	0.00
Filling cabinet	8	65,558.64				65,558.64	39,976.62			4,590.00	44,566.62	20,992.02	25,582.02
Side unit 30*20*13 with brown tap	1	4,347.98				4,347.98	4,347.98				4,347.98	0.00	0.00
Cash Box - Standard	1	1,289.19				1,289.19	1,289.19				1,289.19	0.00	0.00
Table Fans	5	24,540.00				24,540.00	18,345.00			1,239.00	19,584.00	4,956.00	6,195.00
Computer table	2	20,200.00				20,200.00	18,010.00			730.00	18,740.00	1,460.00	2,190.00
Cupboards	6	59,860.00				59,860.00	21,254.00			5,487.00	26,741.00	33,119.00	38,606.00
Aluminium Cupboards	1	30,000.00				30,000.00	6,000.00			3,000.00	9,000.00	21,000.00	24,000.00
Tables	31	235,791.25				235,791.25	156,775.64			21,199.13	177,974.77	57,816.48	79,015.61
Steel Table	9	96,670.00				96,670.00	86,182.00			2,622.00	88,804.00	7,866.00	10,488.00
Cupboards	1	14,500.00				14,500.00	14,500.00				14,500.00	0.00	0.00
Steel filling cabinet	11	88,618.82				88,618.82	59,020.36			8,311.88	67,332.24	21,286.58	29,598.46
Steel writing tables	7	46,850.00				46,850.00	42,165.00			4,685.00	46,850.00	0.00	4,685.00
Wooden tables	5	17,500.00				17,500.00	15,750.00			1,750.00	17,500.00	0.00	1,750.00
Computer table	18	102,437.00			14,963.00	117,400.00	66,062.40			8,860.00	74,922.40	42,477.60	36,374.60
Laboratory - Tables	2	8,000.00				8,000.00	7,200.00			800.00	8,000.00	0.00	800.00
- Stools	18	14,910.00				14,910.00	9,355.00			1,491.00	10,846.00	4,064.00	5,555.00
Conference - Chairs	46	99,418.00				99,418.00	89,476.20			9,941.80	99,418.00	0.00	9,941.80
Library Cupboards	2	24,829.06				24,829.06	22,346.18			2,482.88	24,829.06	0.00	2,482.88
Tender Box	1	2,125.00				2,125.00	1,912.50			212.50	2,125.00	0.00	212.50
Filling rack	2	9,850.00				9,850.00	9,665.00			185.00	9,850.00	0.00	185.00
Dining Table	1	3,000.00				3,000.00	2,700.00			300.00	3,000.00	0.00	300.00
Tea Table	1	1,500.00				1,500.00	1,350.00			150.00	1,500.00	0.00	150.00
Chairs	27	69,868.25			15,320.00	85,188.25	32,325.48			8,518.83	40,844.31	44,343.95	37,542.77
Arm Chair	7	21,620.00				21,620.00	11,210.00			2,162.00	13,372.00	8,248.00	10,410.00
Plastic Chairs	138	82,695.00			5,296.00	87,991.00	38,212.50			8,799.10	47,011.60	40,979.40	44,482.50
Steel chairs	4	13,814.00				13,814.00	10,712.60			1,381.40	12,094.00	1,720.00	3,101.40
Typing Tables	2	9,980.00				9,980.00	8,982.00			998.00	9,980.00	0.00	998.00
Conference - Tables	1	29,200.00				29,200.00	26,280.00			2,920.00	29,200.00	0.00	2,920.00
- Chairs	10	77,900.00				77,900.00	70,110.00			7,790.00	77,900.00	0.00	7,790.00
Steel Cupboard	7	52,950.00				52,950.00	37,864.00			5,295.00	43,159.00	9,791.00	15,086.00
Racks	4	22,625.00				22,625.00	14,430.00			2,262.50	16,692.50	5,932.50	8,195.00
Stand Fans	5	21,650.00				21,650.00	15,820.00			2,165.00	17,985.00	3,665.00	5,830.00
Metress	51	142,622.00				142,622.00	82,055.00			14,262.20	96,317.20	46,304.80	60,567.00
Stools	2	3,450.00				3,450.00	2,415.00			345.00	2,760.00	690.00	1,035.00
Pillows	14	2,750.00				2,750.00	989.00			275.00	1,264.00	1,486.00	1,761.00
Nets	2	1,500.00				1,500.00	1,050.00			150.00	1,200.00	300.00	450.00
Bad	4	23,150.00				23,150.00	11,705.00			2,315.00	14,020.00	9,130.00	11,445.00
mage boards	2	3,850.00				3,850.00	770.00			385.00	1,155.00	2,695.00	3,080.00
Mahogani Bads	4	83,200.00				83,200.00	24,960.00			8,320.00	33,280.00	49,920.00	58,240.00
Mahogani Cupboard	1	64,000.00				64,000.00	19,200.00			6,400.00	25,600.00	38,400.00	44,800.00
Sub Total		5,894,085.55	0.00	0.00	35,579.00	5,929,664.55	5,298,240.01	0.00	0.00	152,781.22	5,451,021.23	478,643.33	595,845.54

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Note
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Descriptions	No	Balance as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Additions During the Year Rs	Balance as at 31.12.2011 Rs	Aggregated Depreciation as at 1.1.2011 Rs	Adjustment to Opening Balance Rs	Disposed Rs	Depreciation for the Year Rs	Aggregated Depreciation as at 31.12.2011 Rs	Balance as at 31.12.2011 Rs	Balance as at 31.12.2010 Rs
Furniture & Fittings													
Balance C/F		5,894,085.55	0.00	0.00	35,579.00	5,929,664.55	5,298,240.01	0.00	0.00	152,781.22	5,451,021.23	478,643.33	595,845.54
Filling cabinet	16	204,345.00			55,860.00	260,205.00	70,873.00			26,020.50	96,893.50	163,311.50	133,472.00
Kitchen cupboards	1	203,320.00				203,320.00	81,328.00			20,332.00	101,660.00	101,660.00	121,992.00
Computer tables	4	35,749.75				35,749.75	11,674.92			3,574.98	15,249.90	20,499.85	24,074.83
Plastic chairs	40	25,960.00				25,960.00	9,474.00			2,596.00	12,070.00	13,890.00	16,486.00
Computer chairs	3	20,505.20				20,505.20	7,091.03			2,050.52	9,141.55	11,363.64	13,414.17
Chairs	88	338,973.00				338,973.00	135,589.20			33,897.30	169,486.50	169,486.50	203,383.80
Execative chairs	24	175,492.13				175,492.13	70,196.82			17,549.21	87,746.02	87,746.10	105,295.31
Auditorium chairs	140	986,125.00				986,125.00	394,450.00			98,612.50	493,062.50	493,062.50	591,675.00
Tables	36	463,863.36			47,040.00	510,903.36	178,203.68			51,090.34	229,294.02	281,609.34	285,659.68
Reading tables	8	97,472.41				97,472.41	19,494.48			9,747.24	29,241.72	68,230.69	77,977.93
Clark table	7	54,900.00				54,900.00	10,980.00			5,490.00	16,470.00	38,430.00	43,920.00
Mira table	2	13,200.00				13,200.00	2,640.00			1,320.00	3,960.00	9,240.00	10,560.00
Dining tables	3	57,960.00				57,960.00	23,184.00			5,796.00	28,980.00	28,980.00	34,776.00
Head table	1	87,400.00				87,400.00	34,960.00			8,740.00	43,700.00	43,700.00	52,440.00
Board room table	1	149,500.00				149,500.00	59,800.00			14,950.00	74,750.00	74,750.00	89,700.00
OHP Stands	3	60,030.00				60,030.00	24,012.00			6,003.00	30,015.00	30,015.00	36,018.00
Podium	1	19,435.00				19,435.00	7,774.00			1,943.50	9,717.50	9,717.50	11,661.00
Beads	12	103,500.00				103,500.00	41,400.00			10,350.00	51,750.00	51,750.00	62,100.00
Book racks	2	38,640.00				38,640.00	15,456.00			3,864.00	19,320.00	19,320.00	23,184.00
Sofa Set	1	93,887.50				93,887.50	28,166.25			9,388.75	37,555.00	56,332.50	65,721.25
Sofa set stool	1	6,500.00				6,500.00	1,950.00			650.00	2,600.00	3,900.00	4,550.00
Noties board	1	23,300.00				23,300.00	6,990.00			2,330.00	9,320.00	13,980.00	16,310.00
Fin board	2	29,160.00				29,160.00	8,748.00			2,916.00	11,664.00	17,496.00	20,412.00
reading chair	32	140,492.80				140,492.80	28,098.56			14,049.29	42,147.85	98,344.95	112,394.24
Office chair	12	38,400.00				38,400.00	7,680.00			3,840.00	11,520.00	26,880.00	30,720.00
Dressing table	1	15,580.00				15,580.00	4,674.00			1,558.00	6,232.00	9,348.00	10,906.00
High back chairs	7	56,267.75				56,267.75	5,626.78			5,626.79	11,253.57	45,014.19	
Ex- Tables	2	31,437.00				31,437.00	3,143.70			3,143.70	6,287.40	25,149.60	
Side tables	2	17,280.00				17,280.00	1,728.00			1,728.00	3,456.00	13,824.00	
Movable cabinet	2	16,200.00				16,200.00	1,620.00			1,620.00	3,240.00	12,960.00	
moveble cabinet for UPS CPU	2	5,940.00				5,940.00	594.00			594.00	1,188.00	4,752.00	
Ex- high back chairs	2	19,620.00				19,620.00	1,962.00			1,962.00	3,924.00	15,696.00	
Ex - law back chairs	4	31,860.00				31,860.00	3,186.00			3,186.00	6,372.00	25,488.00	
off- cupboards	1	13,800.00				13,800.00	1,380.00			1,380.00	2,760.00	11,040.00	
Filling cabinet -4 draw	1	17,500.00				17,500.00	1,750.00			1,750.00	3,500.00	14,000.00	
Wrating tables	1	11,150.00				11,150.00	1,115.00			1,115.00	2,230.00	8,920.00	
catalog box	1	3,655.22				3,655.22	731.03			365.52	1,096.55	2,558.67	2,924.19
Exhbtion hut	1		92,180.00			92,180.00		9,218.00		9,218.00	18,436.00	73,744.00	0.00
Book racks	4	80,326.40				80,326.40	16,065.28			8,032.64	24,097.92	56,228.48	64,261.12
display racks	4	89,152.00				89,152.00	17,830.40			8,915.20	26,745.60	62,406.40	71,321.60
Taval racks	4	13,750.00				13,750.00	2,750.00			1,375.00	4,125.00	9,625.00	11,000.00
Exhbtion board	1	8,500.00				8,500.00	1,700.00			850.00	2,550.00	5,950.00	6,800.00
										0.00			
Sub Total		9,794,215.07	92,180.00	0.00	138,479.00	10,024,874.07	6,644,310.14	9,218.00	0.00	562,302.19	7,215,830.32	2,809,043.72	2,950,955.66

Note
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Descriptions	No	Balance as at 1.1.2011	Adjustment to Opening Balance	Disposed	Additions During the Year	Balance as at 31.12.2011	Aggregated Depreciation as at 1.1.2011	Adjustment to Opening Balance	Disposed	Depreciation for the Year	Aggregated Depreciation as at 31.12.2011	Balance as at 31.12.2011	Balance as at 31.12.2010
		Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
Electric & Other Fittings													
Office Laboratory Workshop & Mill		522,917.41				522,917.41	522,917.41				522,917.41	0.00	0.00
Sink & fittings	4	11,250.00	9,800.00			21,050.00	11,250.00	980.00		980.00	13,210.00	7,840.00	0.00
Scien	1	67,000.00				67,000.00	67,000.00				67,000.00	0.00	0.00
Ceiling fan	9	15,650.00			24,750.00	40,400.00	10,495.00			4,040.00	14,535.00	25,865.00	5,155.00
Name Board	8	160,250.00			20,850.00	181,100.00	118,160.00			18,110.00	136,270.00	44,830.00	42,090.00
Cartan - Colombo office		112,512.96				112,512.96	11,251.30			11,251.30	22,502.60	90,010.37	101,261.66
Electrical fittings for Generator		393,700.00				393,700.00	314,960.00			39,370.00	354,330.00	39,370.00	78,740.00
Sub total		1,283,280.37	9,800.00	0.00	45,600.00	1,338,680.37	1,056,033.71	980.00	0.00	73,751.30	1,130,765.01	207,915.37	227,246.66
Books													
Library		1,449,757.55	22,971.00			1,472,728.55	994,221.01	2,297.10		128,398.06	1,124,916.19	347,812.36	455,536.54
Sub Total		1,449,757.55	22,971.00	0.00	0.00	1,472,728.55	994,221.01	2,297.10	0.00	128,398.06	1,124,916.19	347,812.36	455,536.54
Computer													
Note Book Computer	7	1,121,251.75			98,000.00	1,219,251.75	1,096,376.75			49,375.00	1,145,751.75	73,500.00	24,875.00
Computer U.P.S.	31	227,539.44			39,068.00	266,607.44	214,856.94			17,595.75	232,452.69	33,154.75	12,682.50
DVD Writer	2	6,500.00	12,000.00		2,650.00	21,150.00	3,250.00	3,000.00		5,287.50	11,537.50	9,612.50	
Computer Monitors	5	50,150.00			14,750.00	64,900.00	33,550.00			16,225.00	49,775.00	15,125.00	16,600.00
Computer & Printers	25,31	3,398,368.12			146,500.00	3,544,868.12	3,218,055.62			127,362.50	3,345,418.12	199,450.00	180,312.50
Computer Software-Thibus	2	39,768.75				39,768.75	39,768.75				39,768.75	0.00	0.00
Computer Modem	1	20,790.00				20,790.00	20,790.00				20,790.00	0.00	0.00
Flash memory	28	74,315.00			35,000.00	109,315.00	61,283.75			14,018.75	75,302.50	34,012.50	13,031.25
hard disk	2		5,250.00		4,500.00	9,750.00		1,312.50		2,437.50	3,750.00	6,000.00	
Dual core processor	1				8,500.00	8,500.00				2,125.00	2,125.00	6,375.00	
speaker set	1		3,000.00			3,000.00		750.00		750.00	1,500.00	1,500.00	
Plotter with computer	1	383,000.00				383,000.00	383,000.00				383,000.00	0.00	0.00
Sub Total		5,321,683.06	20,250.00	0.00	347,968.00	5,689,901.06	5,070,931.81	5,062.50	0.00	235,177.00	5,311,171.31	378,729.75	247,501.25
Telephone & Fittings													
Telephone	10	84,461.00			14,885.76	99,146.76	75,001.00			5,302.15	80,303.15	18,843.61	9,460.00
Intercom Phone	10	143,867.55			3,250.00	147,117.55	141,039.55			2,064.00	143,103.55	4,014.00	2,828.00
mobial phone	4	34,100.00			8,890.00	42,990.00	17,240.00			8,598.00	25,838.00	17,152.00	16,860.00
Mobial internet system	2	16,500.00			4,290.00	20,790.00	11,282.00			4,158.00	15,440.00	5,350.00	5,218.00
inter net network	6	38,785.00	5,805.00		10,870.00	55,460.00	14,173.00	1,161.00		11,092.00	26,426.00	29,034.00	24,612.00
Sub Total		317,713.55	5,805.00	0.00	41,985.76	365,504.31	258,735.55	1,161.00	0.00	31,214.15	291,110.70	74,393.61	58,978.00
Vehicles													
Jeeps	2	410,667.72				410,667.72	410,665.72				410,665.72	2.00	2.00
Van	2	489,850.00			9,100,000.00	9,589,850.00	489,849.00			1,820,000.00	2,309,849.00	7,280,001.00	1.00
Lorry	2	464,554.67				464,554.67	464,552.67				464,552.67	2.00	2.00
Cycle	1	1,250.00				1,250.00	1,250.00				1,250.00	0.00	0.00
Cycle	2	13,900.00				13,900.00	12,400.00			1,500.00	13,900.00	0.00	1,500.00
Motor Cycle	7	440,060.15				440,060.15	440,060.15				440,060.15	0.00	0.00
Double Cab, 4 WD	2	4,725,000.00				4,725,000.00	4,724,998.00				4,724,998.00	2.00	2.00
Double Cab, 4 WD	3	2,712,125.00			5,745,600.00	8,457,725.00	2,712,123.00			1,149,120.00	3,861,243.00	4,596,482.00	2.00
Motor Car	1	1,450,000.00				1,450,000.00	1,449,999.00				1,449,999.00	1.00	1.00
Jeeps	1	2,800,000.00				2,800,000.00	2,800,000.00				2,800,000.00	0.00	0.00
Gas conation	1	98,225.00				98,225.00	39,290.00			19,645.00	58,935.00	39,290.00	58,935.00
Land Rower	1	42,731.28				42,731.28	42,730.28				42,730.28	1.00	1.00
Kubota tractor	1	11,450.00				11,450.00	11,449.00				11,449.00	1.00	1.00
Sub Total		13,659,813.82	0.00	0.00	14,845,600.00	28,505,413.82	13,599,366.82	0.00	0.00	2,990,265.00	16,589,631.82	11,915,782.00	60,447.00
Agro-Farm													
Farm- Garden		302,948.93				302,948.93	227,211.69			75,737.23	302,948.92	0.00	75,737.24
Farm- Garden -Water System		542,829.55				542,829.55	407,122.17			135,707.39	542,829.56	0.00	135,707.38
Farm		408,155.74				408,155.74	408,155.74				408,155.74	0.00	0.00
Sub Total		1,253,934.22	0.00	0.00	0.00	1,253,934.22	1,042,489.60	0.00	0.00	211,444.62	1,253,934.22	0.00	211,444.62

Note	Note	Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
12 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		8,000,000.00	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
		62,748,000.00	62,748,000.00
13 Other Non - Current Assets			
Workers Loan		5,708,662.60	4,399,345.14
Workers Loan -Special		495,000.00	431,666.67
Flood Loan		1,271,679.01	
Work in Progress - Office Building			2,409,097.03
		7,475,341.61	7,240,108.84
14 Current Assets			
Stocks	14.1	2,498,760.55	3,886,131.89
Advances	14.2	1,324,273.49	724,524.01
Deposits	14.3	22,708.75	22,708.75
Detours Control Account	14.4	8,552,492.08	1,338,589.75
Accrued Income	14.5	2,765,786.92	2,765,786.92
Savings	14.6	25,133,497.77	19,514,322.05
Cash at Bank	14.7	916,003.63	7,844,274.11
		41,213,523.19	36,096,337.48
14.1 Current Assets			
Stocks			
Noodles		837,829.35	1,628,969.98
Rice Mill -Rice		4,932.00	415,093.00
- Paddy			357,730.00
Broken & other		3,418.00	5,247.00
Stores -Paddy		29,615.12	32,384.12
Machinery - Raw material		118,369.92	35,770.40
Machinery		377,375.00	358,395.00
Diesel - Factory		194,786.16	46,186.33
- Generator		34,941.00	34,941.00
Research projects		13,489.84	
Packing material - Noodles		884,004.16	401,884.66
Packing material - Rice			569,530.40
		2,498,760.55	3,886,131.89

Note	Note	Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
14.2 Advances			
Festival		142,094.03	140,094.03
Traveling		290,404.11	21,939.30
Half monthly		150.00	150.00
Interring Advance -General R&D		389,094.75	120,052.59
Suspense Account - General			11,181.49
Interring Advance -General - Head Office		102,530.60	31,106.60
Suspense Account General - Head Office		400,000.00	400,000.00
		1,324,273.49	724,524.01
14.3 Deposits			
Services		675.00	675.00
Other		22,033.75	22,033.75
		22,708.75	22,708.75
14.4 Debtors Control Account			
Rice		100,183.75	100,183.75
By-product		6,069.50	6,069.50
Others		1,168,013.80	1,142,853.80
Sale -stole		1,219.00	1,219.00
Agriculture Ministry		7,202,794.93	88,263.70
World food program		67,565.10	
Govibara fund		6,646.00	
		8,552,492.08	1,338,589.75
14.5 Accrued Income			
General		2,685,491.55	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
		2,765,786.92	2,765,786.92
14.6 Savings			
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura		2,250,368.82	2,141,129.28
National Saving Bank 1- 0001- 07-32087-Kollupitiya		22,883,128.95	17,373,192.77
		25,133,497.77	19,514,322.05
14.7 Cash & Cash equivalents			
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
		916,003.63	7,844,274.11
15 The initiate Capitals of the INSTITUTE OF POST HARVEST TECHNOLOGY shown Rs 500,000,000.00			
16			
The institute has received from the treasury on capital expenditure from 2000 to 2011 Rs. 30,509,250.00			

Note		Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
17 Current Liabilities	Note		
Advances	17.1	476,353.77	28,466.58
Accrued Expenses	17.2	4,556,921.64	3,519,207.75
Deposits	17.3	487,439.00	459,439.00
Retention	17.4	4,105,040.83	2,622,379.42
Creditors Control Account	17.5	37,845,629.00	24,334,562.00
Gratuity fund	17.6	12,418,347.00	11,805,382.50
		59,889,731.24	42,769,437.25
17.1 Advances			
Suspense Account Salary		2,819.58	2,819.58
Suspense Account - General		448,387.19	0.00
Special Salary		25,147.00	25,647.00
		476,353.77	28,466.58
17.2 Accrued Expenses			
Accrued Tax for Interest		120,003.64	120,003.64
Accrued Expenses - R & D		4,332,017.64	3,399,074.11
Accrued Expenses - Head office		104,770.36	
Head Office creditor		130.00	130.00
		4,556,921.64	3,519,207.75
17.3 Deposits			
Contract Supplies		5,665.00	5,665.00
Tender - R&D		201,920.00	173,920.00
Tender - Head Office		279,854.00	279,854.00
		487,439.00	459,439.00
17.4 Retention			
Contract Works		2,214,906.22	2,208,850.41
Unpaid - salary		212,987.64	212,987.64
Unpaid - salary - Head office		200.00	200.00
Unpaid - wages		16,067.57	16,067.57
Cancelled cheques		1,521,607.40	45,001.80
Regional Economic Advancement Project 2 -Matale		139,272.00	139,272.00
		4,105,040.83	2,622,379.42
17.5 Creditors Control Account			
Other creditors		677,760.00	227,460.00
5.1 Plastic crates-Fund		36,772,290.00	23,820,570.00
Paboling Vassals-Fund		395,579.00	286,532.00
		37,845,629.00	24,334,562.00
17.6 Gratuity fund		12,418,347.00	11,805,382.50
7.5.1 Plastic crates-Fund			
Balance as at 01.01.2011		23,820,570.00	16,764,495.00
Plastic crates sales		12,951,720.00	7,056,075.00
		36,772,290.00	23,820,570.00

Note		Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
18 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		8,000,000.00	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
		62,748,000.00	62,748,000.00
Other Non - Current Assets			
Workers Loan		5,708,662.60	4,399,345.14
Workers Loan -Special		495,000.00	431,666.67
Flood Loan		1,271,679.01	
Work in Progress - Office Building			2,409,097.03
		7,475,341.61	7,240,108.84
Total Non - Current Assets		70,223,341.61	69,988,108.84
Balance as at 1.1.2011		69,988,108.84	67,054,984.53
Less : Balance as at 31.12.2011		70,223,341.61	69,988,108.84
Increase / Decrease Non Current Assets		(235,232.77)	(2,933,124.31)
19 Current Assets			
Stocks	19.1	2,498,760.55	3,886,131.89
Advances	19.2	1,324,273.49	724,524.01
Deposits	19.3	22,708.75	22,708.75
Debtors Control Account	19.4	8,552,492.08	1,338,589.75
Accrued Income	19.5	2,765,786.92	2,765,786.92
Savings	19.6	25,133,497.77	19,514,322.05
		40,297,519.56	28,252,063.37
Balance as at 1.1.2011		28,252,063.37	24,894,961.19
Less : Balance as at 31.12.2011		40,297,519.56	28,252,063.37
Increase / Decrease Current Assets		(12,045,456.19)	(3,357,102.18)
19.1 Current Assets			
Stocks			
Noodles		837,829.35	1,628,969.98
Rice Mill -Rice		4,932.00	415,093.00
- Paddy		0.00	357,730.00
Broken & other		3,418.00	5,247.00
Stores -Paddy		29,615.12	32,384.12
Machinery - Raw material		118,369.92	35,770.40
Machinery		377,375.00	358,395.00
Diesel - Factory		194,786.16	46,186.33
- Generator		34,941.00	34,941.00
Research projects		13,489.84	
Packing material - Noodles		884,004.16	401,884.66
Packing material - Rice			569,530.40
		2,498,760.55	3,886,131.89

Note	Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
19.2 Advances		
Festival	142,094.03	140,094.03
Traveling	290,404.11	21,939.30
Half monthly	150.00	150.00
Interring Advance -General R&D	389,094.75	120,052.59
Suspense Account General		11,181.49
Interring Advance -General - Head Office	102,530.60	31,106.60
Suspense Account General - Head Office	400,000.00	400,000.00
	1,324,273.49	724,524.01
19.3 Deposits		
Services	675.00	675.00
Other	22,033.75	22,033.75
	22,708.75	22,708.75
19.4 Debtors Control Account		
Rice	100,183.75	100,183.75
By-product	6,069.50	6,069.50
Others	1,168,013.80	1,142,853.80
Sale -stole	1,219.00	1,219.00
Agriculture Ministry	7,202,794.93	88,263.70
World food program	67,565.10	
Govibara fund	6,646.00	
	8,552,492.08	1,338,589.75
19.5 Accrued Income		
Geranial		
Regional Economic Advancement Project 1 -Matale	2,685,491.55	2,685,491.55
Sri Lanka Council forAgricultural Research Policy	49,354.70	49,354.70
	30,940.67	30,940.67
	2,765,786.92	2,765,786.92
19.6 Savings		
National Saving Bank 1- 0005- 04-9129-2-Anuradhapura	2,250,368.82	2,141,129.28
National Saving Bank 1- 0001- 07-32087-Kollupitiya	22,883,128.95	17,373,192.77
	25,133,497.77	19,514,322.05
20 Current Liabilities		
Advances	20.1 476,353.77	28,466.58
Accrued Expenses	20.2 4,556,921.64	3,519,207.75
Deposits	20.3 487,439.00	459,439.00
Retention	20.4 4,105,040.83	2,622,379.42
Creditors Control Account	20.5 37,845,629.00	24,334,562.00
Gratuity fund	20.6 12,418,347.00	11,805,382.50
	59,889,731.24	42,769,437.25
Balance as at 1.1.2011	42,769,437.25	37,434,610.52
Less : Balance as at 31.12.2011	59,889,731.24	42,769,437.25
Increase / Decrease Liabilities	17,120,293.99	5,334,826.73
20.1 Advances		
Suspense Account Salary	2,819.58	2,819.58
Suspense Account - General	448,387.19	0.00
Special Salary	25,147.00	25,647.00
	476,353.77	28,466.58

Note	Balance as at 31.12. 2011 Rs.	Balance as at 31.12. 2010 Rs.
20.2 Accrued Expenses		
Accrued Tax for Interest	120,003.64	120,003.64
Accrued Expenses - R & D	4,332,017.64	3,399,074.11
Accrued Expenses - Head office	104,770.36	
Head Office creditor	130.00	130.00
	4,556,921.64	3,519,207.75
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Tender - Head Office	279,854.00	279,854.00
	487,439.00	459,439.00
20.4 Retention		
Contract Works	2,214,906.22	2,208,850.41
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Unpaid - wages	16,067.57	16,067.57
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Regional Economic Advancement Project 2 -Matale	139,272.00	139,272.00
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20.5 Creditors Control Account		
Other creditors	677,760.00	227,460.00
Plastic crates-Fund	36,772,290.00	23,820,570.00
Paboling Vasals-Fund	395,579.00	286,532.00
	37,845,629.00	24,334,562.00
20.6 Gratuity fund	12,418,347.00	11,805,382.50

Note	Rs.	Rs.
21 Cash & Cash equivalents at the beginning of period		
Cash at Bank		
Bank of Ceylon - Torinton	6,233,983.06	7,785,413.67
People's Bank -Anuradhapura	1,605,291.05	2,763,633.07
Patty Cash	5,000.00	5,000.00
Cash & Cash equivalents as at 31.12.2010	7,844,274.11	10,554,046.74
22 Cash & Cash equivalents at the ending 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