

## **INSTITUTE OF FOOD SCIENCE & TECHNOLOGY SRI LANKA**

# **NEWSLETTER**

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

UDCOMING EVENTS

17<sup>th</sup> May 2018 Training seminar for laboratory technical officers

#### **Activities during ProFood/ProPack 2018 Exhibition**

3 <sup>rd</sup> Aug 2018	* Seminar on Food science & Technology for school students and teachers * Industry Seminar on Technological Challenges for Food Supply
4 <sup>th</sup> Aug 2018	FoodTechno 2018, the Annual Research Session of IFSTSL
5 <sup>th</sup> Aug 2018	Quiz program for universities

## HONORARY MEMBERSHIP TO MR. MARIO DE ALWIS

At its 6<sup>th</sup> Annual General Meeting which was held on the 29<sup>th</sup> of September 2017, the Institute of Food Science and Technology of Sri Lanka conferred its Honorary Membership to Mr Mario De Alwis in recognition of his outstanding service to the Processed Food Industry of Sri Lanka.

Mr Mario De Alwis is the Founder and Managing Director of MA's Tropical Food Processing (Pvt) Ltd. which is a leading Agro-based company engaged in the production, processing and marketing (both local and export) of a wide range of food products. Over thirty years ago, while running a small-scale hotel in the then very rural Dambulla, he started manufacturing spice blends as a way of helping foreign guests recreate Sri Lankan dishes when they go back home. Currently, his company manufactures products under multiple brands for both the local and foreign markets and is in the process of expanding production into new ranges with a special focus on setting up production and sourcing in underdeveloped regions of Sri Lanka.

Mr. Mario De Alwis has received several awards in recognition of his contribution to the industry including recognition as the Entrepreneur of the year in the Central province on numerous occasions. He has been an advisor and consultant in various development programs, with a special focus on developing agriculture value chains including the project with resulted in the Dambulla Economic Centre which has become the trading hub for fresh produce in Sri Lanka.



He was a Founder Member of the National Agribusiness Council and the Sri Lanka Food Processors Association which was formed by the USAID Project AgEnt 20 years ago. He is a past chairman of the National Agribusiness Council and was the 4th President of the Sri Lanka Food Processors Association. The Pro Food Pro Pack exhibition is one of the key projects that was started by him to help develop the local industry.

Mr. De Alwis was instrumental in proposing the formation of the Institute of Food Science and Technology as a way to connect the Private sector, Academia and Professionals in food and related industries and has served on the Institute's Board of Governors.

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**Ifstsl Colombo** 

## Message from the Chairman of the Governing Board of IFSTSL



The Institute of Food science and Technology Sri Lanka has made lot of progress during a short time. This is mainly due to its linkage as a twin body with the Sri Lanka Food Processors association and the joint efforts of the two bodies. However, IFSTSL cannot be complacent of the status. There is much more that could be and should be done to make the Sri Lankan food industry internationally competitive and acceptable. The two organizations must ensure that our food products meet all the quality and safety requirements expected in the international market and do not enter recall and reject lists of the importing countries. There is much to be done to upgrade the technical knowledge of the persons in the industry at small, medium and large levels to be internationally competitive. This could only be done through passing down the new knowledge, new demands, new regulations and changing approaches in food processing.

The members of the IFSTSL need to be far more committed to make real headway for the industry and the academic responsible for developing the human resources for the food industry. In this effort it is also

important for the food industry to make a greater effort to make use of the knowledge base of IFSTSL without waiting for crisis management when the food products face uphill tasks of getting through the food regulatory systems locally and abroad. Prevention is the art of life for success and not crisis management.

Emeritus Professor Upali Samarajeewa

## Message from the President of IFSTSL



Dear Fellow IFSTSL Members, and respected readers,

It is my pleasure to greet you as the president of the IFSTSL, the apex body representing professionals, industrialists and academics engaged in promoting and advancing Food Science and Technology in Sri Lanka. While the Sri Lankan food industry is going through changes such as moving back to minimal processing, organic farming, the industry continue to be largely engaged in food trading as food business. Providing safe food to consumers is the ultimate responsibility of all food suppliers, be it traders, processors, farmers or packers.

The trend in our industry to provide modern fast food and convenient food outlets, which provide comfortable 'eating out' experiences to the consumers is in the increase. But it is rarely we question how healthy such food are. According to health statistics, our country is faced with a double burden of nutrition, ie. the people with inadequate food suffer from under-nutrition while, those who have over

consumption tendencies suffer from over-nutrition. Due to the well-established fact that high fat, salt, and sugar leads to development of non-communicable diseases (NCDs), the Ministry of Health is in the process of developing policies and guidelines to prevent marketing of products high in fat, salt and sugar. It is our responsibility to look into ways and means to reduce the use of these components in food. It would be appropriate for the food industry to embark on research and development activities to develop products which are less in these components so that the industry can contribute to a healthier nation.

From the recent developments in the field of food science and technology, I would like to share with you some interesting facts, which you might like to further search and read. Black carrots (Daucus Carota L.) is found to be a versatile vegetable found to contain phytochemicals, and it is rich in anthocyanins, bioactive compounds, carotenoids, polyacetylenes *etc*. Perhaps, Sri Lankan food industry might be keen to explore in producing black carrot based products. More and more research is being carried out on pesticides in food and our environment. We live in an environment where pesticides are not added in a controlled manner, hence all are concerned about how much of it is released to the environment, and how much is retained in the food we eat. Facilities at affordable fees should be available to test pesticides in the environment and the food. Thirdly, nutritional labelling is becoming highly important. Though nutritional labelling has been happening in developed countries, it is still not well established in Sri Lanka. For the consumer to have informed decision making, truthful and complete nutritional labelling is important. While the Sri Lankan industry needs to prepare for nutritional labelling that may become mandatory in a few years time, better use of existing facilities must be done for nutrient analysis, to facilitate labelling process.

How does IFSTSL cater to some of the industry requirements and challenges mentioned above? In planning the activities for IFSTSL for 2018, we have given more priority to membership development, and capacity development of employees in the food industries. We are committed and engaged intensely to introduce a Food Awards scheme where the food industries would be recognized for their contribution to the food sector. The organizations in the food manufacturing and marketing industries are encouraged to join hands with the IFSTSL as sponsors, to enable IFSTSL to carry out planned programs effectively.

As the president, I want to thank each and every member of IFSTSL who support the work of IFSTSL in many ways, and the professionals in Food Science and Technology, who support our activities. Our members are very dedicated in their voluntary work, and we look forward to their continued support. Let us act together to enhance the membership of IFSTSL and work towards advancement of the industry, research and more collaborative work among related parties.

Dr. Sujeewa Gunaratne

## Seminar on Export Food Trade: Gaps, Potentials and Way Forward

Institute of Food Science and Technology Sri Lanka (IFSTSL) in collaboration with Sri Lanka Food Processors Association (SLFPA) held a seminar on "Export Food Trade: Gaps, Potentials and Way Forward". This was held on 04<sup>th</sup> August 2017 from 1.30 p.m. to 5.00 p.m. at Mihilaka Medura in the BMICH, Colombo, in parallel with the country's largest international food exhibition, ProFood/ProPack/Ag-Biz. Exportation of food pose enormous challenges to Sri Lankan producers and processors, hence careful analysis of situations becomes a necessity for the sector. Sri Lanka needs to adopt wide array of mechanisms to overcome barriers and develop capability of food product exports in order to maximize benefits from international trade. The above seminar focused on examining the current gaps in the export food sector in terms of meeting buyer requirements, value addition, implementing private and public actions required to promote fresh food product and processed food exports ensuring export

passage. The seminar was well attended by food processors & exporters, policy makers, persons from organizations involved in food certification, decision making pertaining to food quality & safety which paved a path to open up a dialogue on nationally important area which requires improvements in promoting SL export food trade. Dr. Eresha Mendis, an executive committee member of IFSTSL coordinated the event.



Food standards and requirements of the foreign buyers

Mr. Supun Jayasinghe
Former Marketing Manager,
Control Union



Contribution of export food sector to national economy

Mr. M.I.M. Rafeek Secretary, Ministry of National Policies and Economic Affairs



Our food safety and quality certifications systems vs. global challenges Dr. Eresha Mendis Senior Lecturer, Department of Food Science and Technology, Faculty of Agriculture,

University of Peradeniya



Meeting the requirements of food importing countries

Ms. Jeevani Siriwardena Director General, Export Development Board



Potential for food exports through free trade agreements

Mrs. Sonali Wijeratne
Director General at the Department
of Commerce



Branded products: Success through establishing the identity

Ms. Theja Pieris Group General Manager-Marketing, Ceylon Biscuits Ltd.



Towards competitive advantages at food export

Dr. Rohantha Athukorala President/ Group CEO, Coral Holdings Limited (Sri Lanka & Maldives)



Food safety: A passage to global food markets

Prof. Upali Samarajeewa Emeritus Professor, University of Peradeniya



Moderator of the panel discussion

Dr. Sanath Mahawithanage Project Consultant, Sarvodaya



The ban on importation, manufacture, use and sale of polythene and plastics in Sri Lanka is a widely discussed subject among food and packaging industry stakeholders now. The ban is not new, it was conceptualized back in year 2006, with the issue of an extraordinary gazette notification 1466/5 of September 2006. However, as the implementation did not occur as expected, new discussions took place arriving at an action plan.

This article examines the key factors that lead to ban of polythene and plastics, and expected outcome in eliminating the causative factors.

## The pollution effect on environment

The key reason for the ban of polythene and plastics as a packaging material for food is that polythene and plastics are identified as material leading to environmental pollution, clogging waterways, rivers etc and in turn causing health issues such as creating breeding sites for mosquitoes. The fact that polythene and plastics do cause environment litter and pollution in Sri Lanka cannot be contested, as it is evident that users of polythene and plastic packaging, dispose them irresponsibly in the environment. Sri Lanka annually imports around 500,000 metric tons (MT) of plastic and polythene, and around 70% of this (about 350,000 MT) is used in Sri Lanka. Out of locally used plastic and polythene, close to 60% end up as waste (which is close to 210,000 MT), while only about 40% is being recycled. Of the two major polythene products used in Sri Lanka, the daily use of shopping bags in Sri Lanka is around 20 million, while around 15 million lunch sheets are used daily. This gives us an idea, due to absence of adequate recycling mechanism and efforts, the load of plastic and polythene released to environment as waste, which usually get piled on garbage dumps, and litters earth, and blocks the waterways. Once released to the environment, polythene and plastics may take more than 500 years to decay, causing unprecedented problems to the environment, human and animal life, and threatening availability of safe drinking water etc.

## The scope of the ban

The following aspects were proposed under the ban imposed from September 2017

- 1. Ban the use of polythene for decoration purposes at cultural, religious, and social events and festivals
- 2. Ban the production, use and sale of polythene of gauge 20 microns or less
- 3. Ban of polythene sheets used for packing food, commonly known as lunch sheets
- 4. Ban of production, use and sale of polystyrene plates, spoons, cups and food packaging boxes. For essential purposes, the production, sale and usage may be permitted by the Central Environment Authority.
- 5. Ban the use of polythene bags in packaging processed food, as well as cooked food available for take away
- 6. Ban burning of polythene and plastic in open places
- 7. Ban of importation of recycled plastic

#### Promotions in relation to above ban:

To make the ban effective and meaningful the following suggestions were made by the authorities providing alternatives to banned products.

- 1. Promotion of provision of paper, cloth, reed bags or biodegradable polythene in issuing purchased items to customers
- 2. Introduction and promotion of biodegradable polythene and plastics

#### Will the ban be effective?

As the above statistics revealed, efficient implementation of the proposed ban will be able to curtail the availability of plastics and polythene in Sri Lanka, to a large extent. Therefore, it can be expected that the ban will bring about a considerable reduction of pollution caused by polythene and plastics. However, it must be noted that plastics and polythene manufactured and or imported by organized sector as well as non-organized (commonly known as baggage business) sector must be controlled in order to bring about an effective control on polythene and plastics. The discussions of the industry and authorities have also suggested to bring in an 'Extended Producer Responsibility' (EPR) mechanism to arrest the environmental pollution caused by haphazard disposal of plastic bottles (also known as PET bottles) in the environment. Certain large industries already have created mechanisms to collect empty PET bottles from retailers, where retailers could reimburse the customers for returning the bottles. However, it is imperative that such collecting mechanisms must be widely available for all kinds of empty PET bottles, either from customers, or from retailers, in order to make an EPR system viable and environmental friendly.



## Why plastic bottles, polythene and their alternatives are necessary?

Polythene, due to its chemical nature, can bear weight. A small polythene bag (carry bag) can carry a weight up to about 8-9 kg without breaking, due to its strength. It is also flexible, hence suitable as a packaging and wrapping material for many purposes. On the other hand, paper, which can be an alternative packaging and wrapping material, is not adequately strong, and is subjected to wear and tear soon. Similarly, plastic or PET bottles, have been found to be useful as a packaging material for both solid and liquid food, chemicals, pharmaceuticals, alcoholic beverages etc. During the last few decades many food products which were earlier packaged in glass bottles have moved into use of PET packaging, due to frequent occupational health problems (breaking of glass bottles causing injury), high transport cost for glass bottles due to additional weight, energy cost in producing glass bottles, and extra cost of printing glass containers etc. Despite some of these benefits of PET packaging, some industries continue to use glass containers or bottles, due to the technological benefits, such as the ability to sterilize food once packaged in glass containers. Therefore, it must be noted that both glass and plastic bottles have their own advantages, which can be passed on to customers, if proper environmental management is committed by their producers, industrial users and the consumers collectively.

> Dr. Sujeewa Gunaratne President IFSTSL/2018

### Message from the President of Sri Lanka Food Processors Association



It is my pleasure to pen this message for the IFSTSL newsletter as the newly elected president of Sri Lanka Food Processors Association (SLFPA). SLFPA works hand in hand with IFSTSL from its inception and succeeded in collaboratively organizing numerous events focusing the development of the

food sector in Sri Lanka. SLFPA always expect the scientific blend from IFSTSL to trigger developments in the food industry in Sri Lanka and promoting the industry across the globe.

IFSTSL functions as the mediator to bring together experts from the allied fields of food science and technology as well nutrition for discussions of the latest advances and ideas, and to stimulate interdisciplinary interactions.

I believe IFSTSL has already taken the lead role in dissemination of information to the food industry in terms of training sessions, awareness seminars and workshops targeting key focuses of the food industry such as food safety & quality, certification & accreditation and technological advancements. IFSTSL has been successful in conducting a scientific research session in parallel with the ProFood/ProPack/Ag-Biz exhibition aiming to have a dialogue with the industry and to share the research findings conducted in universities or any other research entities which I see as an important step it has initiated to work collaboratively with the food industry.

I am highly optimistic that IFSTSL will pave a way to gather scientific visionaries and will put forward many thought provoking strategies for future line of action in the area of Food Science and Technology in Sri Lanka.

May I offer my heartiest congratulations to Dr. Sujeewa Gunaratne, the President of IFSTSL 2018 and I wish great success to the entire team!

Sarath Alahakoon

#### TRAINING SEMINAR FOR LABORATORY TECHNICAL OFFICERS

17<sup>th</sup> May 2018 at Global Towers Hotel from 9.00 a.m. to 4.00 p.m.

The training program plans to inculcate into the minds of technical officers the acceptable practices and the fine points to be addressed in generating accurate test results. The program specifically addresses the key theoretical aspects that should essentially be adhered to, and the errors that rise during practice, using examples observed during actual laboratory practices, in the areas of chemical and microbiological testing of foods.

The learning points of the training program includes introduction to concepts of laboratory accreditation, roles and responsibilities of technical officers in an accredited testing laboratory, achieving accuracy and precision in measurements and intermediate checks, equipment maintenance and quality assurance checks in testing, self-improvement in hands-on practices and analytical data handling and recognizing the trends. Emeritus Professor Upali Samarajeewa who is an international consultant on laboratory accreditation conducts this training program.

## **INTER-UNIVERSITY FOOD SCIENCE QUIZ PROGRAM – 2017**



The Inter-University quiz program on Food Science and Technology was be held at BMICH parallel to the ProFood / ProPack exhibition in August 4, 2017. The objective of the program, conducted by the IFSTSL, was to give the opportunity for the students reading for the Food Science and Technology degree programs identified in the UGC handbook to participate in a friendly competition, with their counterparts in other universities. It also provided a mechanism to expose interested public to understand deep scientific and technological aspects of food science based on sound science.

Students reading for Food Science and Technology Bachelors' degrees programs from the Universities of



Peradeniya, Sabaragamuwa, Sri Jayewardenepura and Wayamba participated in the event. The event was well attended with an enthusiastic audience. The program consisted of rounds of question-answer sessions and impromptu speech from each team, on a title related to modern food science and technology, where balanced views on controversial topics were presented. The team from the University of Sri Jayewardenepura won the challenge trophy, and University of Sabaragamuwa was the runner-up.

The program will be conducted as an annual event parallel to the ProFood/ProPack/Ag-Biz exhibition. There will be increased opportunities for participation for other Universities too, in 2018.





The third Annual Research Session of the IFSTSL, "Innovation to Application" was held on 05<sup>th</sup> of August 2017 at Mihilaka Medura, BMICH Colombo, during ProFood/ProPack-AgBiz Exhibition, as a whole-day event. Three technical sessions steered nine research paper presentations representing research carried out by twelve research entities. A cash price was awarded to Rajawardana D.U., of the Industrial Technology Institute for the best research presentation on probiotic yeast isolated from a dairy source. The research presentations led off to build up a dialogue between the researchers and the food industry, which highlighted the industry research needs to cater the demands of the food sector leading new developments. Mr. Mario De Alwis, the Managing Director of Ma's Tropical Food Processing (Pvt) Ltd delivered the Keynote speech with an eye

opening to the stakeholder groups of the food sector in tailoring the new product development to meet the needs of the society. Emeritus Prof. Upali Samarajeewa, Prof. K.K.D.S. Ranaweera and Dr. Eresha Mendis chaired the sessions. Dr. Sujeewa Gunaratne, Mr. Ruwan Kumara Jayakody and Mr. Sumith Liyanage served as the judges. In parallel to the research session, latest research instruments and laboratory aids were displayed by Hemsons international (Pvt) Ltd. Hemsons international (Pvt) Ltd., Biomed Scientific (Pvt) Ltd., Country Style Foods (Pvt) Ltd., Dialog Axiata Plc., and Trans Continental Packaging and Commodities (Pvt) Ltd. Sponsored the event. Dr. Niranjan Rajapakse of IFSTSL coordinated the



Rajawardana D.U.

## 6th Annual General Meeting of the Institute of Food Science and Technology Sri Lanka (IFSTSL)

The 6th AGM of the Institute of Food Science and Technology Sri Lanka (IFSTSL) was held at Royal Colombo Golf Club, Colombo on 29<sup>th</sup> September, 2017.

The tenure of the year 2017 was summed by the Secretary in the annual report of the year 2016/2017 briefing the activities carried out by the IFSTSL. It was stated that the committee was able to achieve planned work for the year including membership development and publicity programs, Training seminar for laboratory technical officers on practical applications aiming laboratory quality assurance,



Seminar on "Export food trade: Gaps, Potentials and way forward" in parallel with Pro Food Pro Pack-Ag Biz exhibition, Third IFSTSL annual research session "Food Techno 2017: Innovation to application" which was also held in parallel with Pro Food Pro Pack exhibition, Issuing of the 6th volume of IFSTSL newsletter, Launch of the postgraduate diploma in food safety, plant and animal hygiene. Further it was mentioned that the Act to incorporate IFSTSL as a national recognized body is to be approved soon and activities were initiated for a food award scheme for the food industries to recognize their technical and other strengths. The report stated that the year 2016/2017 has turned to be a successful year for the IFSTSL.

#### Members of the board of governors and the executive committee for the year 2017/2018.

**Emeritus Prof. Upali Samarajeewa** 

Prof. A. Bamunuarachchi

Mr. Rohantha De Fonseka

Dr. D.B.T. Wijeratne Mr. Sarath Alahakoon (President/ SLFPA) - B.O.G. - Member

Dr. Sujeewa Gunaratne

Dr. Sanath Mahawithanage

Prof. K.K.D.S. Ranaweera

Ms. Choshani Dalukdeniya

Mr. Rasika Seneviratne

Mr. Cyril Wickramarathne

Mr. Thusith Wijesinghe

Dr. Eresha Mendis

Prof. Gamini Fonseka

Dr. Niranjan Rajapakse

Mr. Nanda Kohona

Mr. Mallika De Alwis Ms. Sashi Sooriyaarchchi

Mr. Supun Jayasinghe

- B.O.G. - Chairman

- B.O.G. - Member

- B.O.G. - Member

- B.O.G. - Member

- President

- President Flect

- Immediate Past President

- Joint Secretary - 1

- Joint Secretary - 2

- Treasurer

- Assistant Treasurer

- Editor

- Committee member

- Committee member

- Committee member

- Committee member - Committee member

- Committee member

The chairman of the BOG Emeritus Prof. Upali Samarajeewa addressed the AGM stating the responsibilities of the members and giving a flashback on the past six years of the IFSTSL. The newly appointed president, Dr. Sujeewa

Gunaratne welcomed the new executive committee while thanking and appreciating the work done by the previous committee. She focused on three aspects during her speech; Commitment, Integrity and Teamwork while promising to deliver all expectation of IFSTSL in the upcoming year. The meeting concluded after the vote of thanks by the secretary followed by a wonderful evening with celebrations.





