November 20, 2014

Technical Session I

Diversity and Evaluation of Animal Genetic Resources

Chairperson: Dr. Nimal Chandrasiri
Venue: Main Auditorium, PGRC

11.15 am  Chicken inventory and pattern of entry and exit of indigenous birds at village level in Punjab (Pakistan)
            S. Sadef, M. S. Khan, M. S. Rehman, M. N. M. Ibrahim and A. M. Okeyo

11.35 am  Determinants of willingness to pay for different indigenous chicken types by farmers: using an experimental auction
            M.N.D.F. Abeykoon, J. Weerahewa, P. Weligamage and G.L.L.P Silva

11.55 am  Mitochondrial DNA variation in indigenous sheep (Ovis aries) breeds of Nepal
            N.A. Gorkhali, J.L. Han and Y.H. Ma

12.15 pm  Genetic diversity and relationship of Indonesian indigenous chickens Inferred from Microsatellite DNA Markers
            H. Ashari, S. Sulandari, M.S.A. Zein and J.L. Han

12.35 pm  Effect of breeding strategies to increase productivity of indigenous chicken in-situ in Bangladesh

12.55 pm  Characteristics of appearances, productive ability of F1 (Jungle fowl male x Fayoumi chicken female) and F1 (Jungle fowl male x H’mong chicken female) reared at National Institute of Animal Sciences – Vietnam
            N.T.H. Hanh, L. T. Thuy, Han Jialin, M.N.M. Ibrahim and A.M. Okeyo

01.35 pm  LUNCH
### Technical Session II

**Food, Feed and Nutrition**

**Chairperson:** Prof. P.A.J. Perera  
**Venue:** Seminar Room, PGRC

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 11.15 am | Antioxidant potential of rice bran oil prepared from red and white rice  
Dilini Bopitiya and W.M.T. Madhujith |
| 11.35 am | Study on isolation of potentially probiotic lactobacillus species from  
fermented rice  
N. Jeygowri, N. Parahitiyawa, S. Jeyatilake, S. Ranadheera and  
W.M.T. Madhujith |
| 11.55 am | Effect of boiling on the antioxidant concentration of Dioscorea alata (raja  
ala) grown in Sri Lanka  
Ranithri Abeynayake and R. Sivakanesan |
| 12.15 pm | Antioxidant activity and total phenolic content of different skin coloured  
brinjal (solanum melongena)  
K.M. Somawathi, V. Rizliya, D.G.N.G. Wijesinghe and  
W.M.T. Madhujith |
| 12.35 pm | Brassinosteroids improve quality of table grapes (Vitis vinifera L.) cv.  
flame seedless  
W.A. Harindra Champa, M.I.S. Gill, B.V.C. Mahajan, N.K. Arora and  
Seema Bedi |
| 12.55 pm | Potential of thampala (Amaranth) as a forage crop in Sri Lanka  
I.K. Leukebandara, S. Premaratne and B.L. Peris |
| 01.15 pm | Effects of increasing levels of dietary rice bran with or without phytase, on  
performance and egg parameters of Japanese quail  
H.M.W.N. Abeyrathna, N.S.B.M. Atapattu and  
W.W.D.A. Gunawardane |
| 01.35 pm | LUNCH |
Poster Presentations
Venue: Lobby, PGRC

2.00 pm

Weighted modeling and forecasting of cocoa production in Ghana: A multivariate approach
Sampson Ankrah, B.L. Peiris and R.O. Thattil

Feasibility study of cryogenic grinding of spices using latent heat of water: A case study for chilli (Capsicum Annu. L.)

Increasing water productivity of rice by conjunctive use of rain and tank water with ‘Parachute’ method of crop establishment: A case study from “Udakadawala Mahawewa” tank in Kurunagala district
K.R. Thilakasiri, L.W. Galagedara and M.I.M. Mowjood

Assessment of feeding and watering practices for raising goats in Punjab, Pakistan
M.S. Muhammad, M.S. Khan and A. Waheed

Analysis of gender differences in intra-household time allocation
R.M.S.D. Rathnayaka and J. Weerahewa

Induction of genetic variability and isolation of mutants in tuberose (Polianthes tuberosa L.):
Pooja Kainthura and Ranjan Srivastava

Estimation of rubber price returns using quantile regression
Kwadwo Agyei Nyantakyi, B.L. Peiris and L.H.P. Gunaratne

Postharvest life of cut chrysanthemum cultivars in relation to chemicals, wrapping material and storage conditions
Gunjan Sharma and Ranjan Srivastava

Analysis of the body condition with free grazing cattle by GPS
Choi Eun Gyu, Sang Yoon Lee, Myeong Hun Kim, Ki Yeon Kim, Han Jong Ko and Hyeon Tae Kim

The separation efficiency of livestock manure biogas by membrane
Jong Eon Kim, Sang Yun Lee, Chung Seop Lee and Hyeon Tae Kim

Effect of rice plant and urea on soil organic matter content in lowland paddy field at Bayawa minor irrigation system in Kurunagala district
T. Sellathurai, T. Sivananthawerl, L.W. Galagedara and M.I.M. Mowjood

Assessment of inorganic pollutant contamination in groundwater using Ground Penetrating Radar (GPR)
Y.N.S. Wijewardana, L.W. Galagedara, M.I.M. Mowjood and K. Kawamoto
A novel cost-effective fermentation medium for the production of *Bacillus thuringiensis* subsp. *Israelensis* (Bti) for mosquito control
G.A. Udayantha, K.D. De A.G. Abeysingha and T.C. Bamunuwarachchige

Bulk soil properties as determinants of the soil compression strength of puddled low land paddy soils in Sri Lanka
G.V.T.V. Weerasooriya, D.N. Jayatissa and M. Rambanda

Gelatinization of rough Rice Using Far- Infrared (Fir) Radiation

The effect of CO\textsubscript{2} distribution on thermal buoyancy in a greenhouse
Hee Tae Kim, Chi Ho Kim, Eun Gyu Choi, Byung Ok Jin, Yong Cheol Yoon and Hyeon Tae Kim

Comparative analysis of the cutting load in accordance with the angle of the combine cutting knife
Byung Ok Jin, Min Ho Lee, Tae Jong Park, Chi Ho Kim, Min Ho Heo and Hyeon Tae Kim

Analysis of Internal environment of a pig house using energy recovery ventilator
Byeong Eun Moon, Hee Tae Kim, Kyu Dong Nah, Jin Hyun Kim and Hyeon Tae Kim

Monitoring of pig body temperature using infrared sensors
Jin Cheol Jang, Jun Yeop Lee, Sang Yoon Lee, Hyeok Ju Kim, Dong Yun Choi, Seong Hyeon Lee and Hyeon Tae Kim

Application of near infra-red (Nir) spectroscopy to quantify fat and total solid contents of sweetened condensed creamer
S. Subajiny, M.M. Jayasiri and Terrence Madhujith

Effects of hydro-climatic fluctuations on catchability of fish in a medium perennial Vavuniya reservoir, Sri Lanka
A.E.S. Patrick, S. Kuganathan and U. Edirisinghe

High prevalence of stunted pre school children in food insecure rural households

Adsorption characteristics of Cadmium and Lead heavy metals into locally synthesized Chitosan Biopolymer
J.M. Unagolla and S.U. Adikary

A preliminary investigation on methods of reducing antibiotic resistant bacteria in broiler litter in selected farms in mid country Sri Lanka
E.M. Herath, W.S. Dandeniya, A.G.S.I. Samarasinghe, T.P.M.S.D. Bandara and R.N. Jinadasa
**Invited Presentation**

Chairperson: Prof. Hyeon Tae Kim  
*Venue: Main Auditorium*

02.20 pm  
How will bio-fuel affect food and energy security in Asia?  

Dr. Venkatachalam Anbumozhi  
Senior Researcher, Economic Research Institute for ASEAN and East Asia, Jakarta, Indonesia

---

**Technical Session III**

**Water Resources Management**

Chairperson: Dr. H. Manthrithilake  
*Venue: Main Auditorium, PGRC*

03.00 pm  
Wastewater quality improvement by biosorbant for textile industry  
A.I. Hettige and M.I.M. Mowjood

03.20 pm  
Morphometric analysis of the Gal Oya river basin using spatial data derived from GIS  
N.S. Withanage, N.D.K. Dayawansa and R.P. De Silva

03.40 pm  
Comparative performance assessment of major irrigation systems in upper Deduru Oya Basin  
W.A.S. Lakmali, E.R.N. Gunawardena and N.D.K. Dayawansa

04.00 pm  
Modelling the impact of changes in rainfall distribution on the irrigation water requirement and yield of short and medium duration rice varieties using APSIM during Maha season in the Dry zone of Sri Lanka  

04.20    
TEA
Technical Session IV

Molecular Biology and Biotechnology

Chairperson: Prof. Athula Perera
Venue: Seminar Room, PGRC

03.00 pm An efficient protocol for isolation of functional RNA from peel tissue of different banana (Musa spp.) cultivars for gene expression studies on anthracnose development
U.M. Aruna Kumara and Devika M.De Costa

03.20 pm Evaluation of DNA markers linked to blast resistance genes, $Pikh$, $Pit (p)$, and $Pita$, for parental selection in Sri Lankan rice breeding

03.40 pm Genetic diversity of the Sri Lanka yellow dwarf coconut form as revealed by microsatellite markers
L.C.J. Kamaral, S.A.C.N. Perera, L.N.S. Perera and P.N. Dassanayaka

04.00 pm Validation of molecular markers for the analysis of genetic diversity of amylose content and gel consistency among representative rice varieties in Sri Lanka

04.20 pm TEA
November 21, 2014

Technical Session V

Biosystems Engineering & Remote Sensing

Chairperson: Prof. Sarath Ilangantileke
Venue: Seminar Room, PGRC

08.00 am Estimation of above ground biomass in Horton Plains National Park, Sri Lanka using optical, thermal and RADAR Remote Sensing data
A.R. Gunawardena, S.P. Nissanka, N.D.K. Dayawansa and T.T. Fernando

08.20 am Seasonal changes in home range and habitat use of elephants in southern and north-central provinces of Sri Lanka.
M.S.L.R.P. Marasinghe, N.D.K. Dayawansa and R.P. De Silva

08.40 am Milling recovery and quality of combine harvested paddy– Case study in Batticaloa and Ampara districts
R. Bawatharani, D.N. Jayatissa, D.A.N. Dharmasena and M.H.M.A. Bandara

09.00 am Vibration simulation testing of banana bulk transport packaging systems

09.20 am Analysis of the shape of feed speed and cutting speed of Korean and Japanese combines with high-speed camera
Min Ho Lee, Byung Ok Jin, Tae Jong Park, Chi Ho Kim, Min Ho Heo and Hyeon Tae Kim
## Technical Session VI

**Agronomy and Plant Breeding**

*Chairperson: Prof. R.B. Mapa*  
*Venue: Main Auditorium, PGRC*

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 08.00 am | Effect of root and foliar application of soluble silicon on anthracnose disease, plant growth and some fruit quality parameters of Capsicum  
*H.A.R.K. Jayawardana, H.L D. Weerahewa and M.D.J.S. Saparamadu* |
| 08.20 am | Morphological variation in selected Sri Lankan rice (oryza sativa L.) accessions in relation to the vegetative parameters  
| 08.40 am | Performance of pedigree, single seed descent and modified bulk selection methods in F4, F5 and F6 generations in cowpea (Vigna unguiculata L. Walp) breeding  
*M.C. Millawithanachchi, V.A. Sumanasinghe, A.P. Bentota and S. de Z. Abey Siriwardena* |
| 09.00 am | Consequences of presently used fertilizer mixtures for tea growing soils of the low country of Sri Lanka on ammonia volatilization  
*L.R.M.C. Liyanage, A.N. Jayakody and G.P. Gunaratne* |
| 09.20 am | Soil chemical properties of low land rainfed paddy fields and their suitability for rice cultivation – a case study in Kurunegala district  
*W.M.U.K. Rathnayake, R.P. De Silva and N.D.K. Dayawansa* |

### Invited Presentation

*Chairperson: Prof. E.R.N. Gunawardena*  
*Venue: Main Auditorium*

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
</tr>
</thead>
</table>
| 9.40 am | Global warming and plant resilience: understanding the role of plant carbon metabolism  
*Prof. Owen Atkin*  
ARC Centre of Excellence in Plant Energy Biology, Australian National University, Canberra, Australia. |

10.20 am  TEA
Technical Session VII

Plant Protection

Chairperson: Dr. Nimal Dissanayake
Venue: Seminar Room, PGRC

10.50 am Evaluation of Trichogramma chilonis Ishii (Hymenoptera: Trichogrammatidae) as a potential biocontrol agent

11.10 am Isolation of Bacteriophages and determination of their efficiency in controlling Ralstonia Solanacearum, the bacterial wilt pathogen of tomato
M.D. Kalpage and D.M. De Costa

11.30 am A comparison on termite assemblages in plantations and semi-evergreen forest –A case study from north Wayanad, Kerala, India
K.V. Bhavana, Amina Poovoli and K. Rajmohana

11.50 pm Scanning electron microscopy of mealybugs (Hemiptera: Pseudococcidae) of Sri Lanka

12.10 pm Trichogrammatoidea bactrae Nagaraja (Hymenoptera: Trichogrammatidae): A potential biocontrol agent of rice leaf folder
M.C.D. Perera, K.S. Hemachandra and U.G.A.I. Sirisena

12.30 pm LUNCH
Technical Session VIII

Statistics and Economics

Chairperson: Prof. C. Bogahawatte
Venue: Main Auditorium, PGRC

10.50 am Equal-weighted information criterion for model selection in univariate time series analysis
Sampson Ankrah, B.L. Peiris and R.O. Thattil

11.10 am Weighted ranking procedure for combining univariate time series models
Sampson Ankrah, B.L. Peiris, and R.O. Thattil

11.30 am An evaluation of maize contract farming system in Sri Lanka; adoption, problems and future prospects
P.A. Jayamini Champika and L.M Abeywickrama

11.50 am Effect of regionalism on south Asian trade, a gravity model analysis,
P. Dembatapitiya and Jeevika Weerahewa

12.30 pm LUNCH

Invited Presentation

Chairperson: Prof. H.W. Cyril
Venue: Main Auditorium

01.15 pm Global food and meat industry – Trends and challenges
Prof. Dong Uk Ahn
Animal Science Department, Iowa State University, USA
Technical Session IX

Improvement and Management of Animal Genetic Resources

Chairperson: Dr. R.T.G. Rathnayake
Venue: Main Auditorium, PGRC

01.55 pm Pattern of pathological changes of the liver in broiler birds under different management conditions

02.15 pm Fertility and hatchability of eggs and growth performance of mini-incubator hatched indigenous chicken in rural areas of Bangladesh

02.35 pm Ex situ improvement of indigenous chicken in Bangladesh
S. Faruque, M.N. Islam and A.K.F.H. Bhuiyan

03.15 pm Goat management systems in Bulathkohupitiya veterinary range
R.A.U.K. Wijethunga, S. Premaratne and B.L. Peiris

03.35 am TEA
Technical Session X

Agricultural Extension and Education

Chairperson: Prof. C. Sivayoganathan
Venue: Seminar Room, PGRC

01.55 pm Initiate m-learning among a group of young farmers from Kandy district Sri Lanka: activity theory based approach
Uvasara Dissanayeke, K.P. Hewagamage Robert Ramberg and Gihan Wikramanayake

02.15 pm Factors influencing motivation to transfer training: an empirical study of government sector training program in Sri Lanka
G.T. Madagamage, B.N.F. Warnakulasooriya and H.V.A. Wickramasuriya

02.35 pm University students’ intention to pursue overseas jobs: A Case of the University of Peradeniya
C.A.K. Weerasinghe and S. Kumar

02.55 pm Factors predicting the intention of academics of faculties of agriculture of the state universities in Sri Lanka to engage in outreach activities
R.M.S. Wijerathna, H.V.A. Wickramasuriya and B. Marambe

03.35 pm TEA

Closing Session

Chairperson: Dr. S. Pathmarajah
Venue: Main Auditorium, PGRC

4.00 p.m. Invited Presentation by Distinguished PGIA Alumnus
PGIA and its contribution to human resource development in the region; a personal perspective
Dr. A.P.G.S. De Silva

4.40 p.m. Presentation of Awards

5.00 p.m. Vote of thanks
Ms. Kamani Dissanayake
Secretary, Postgraduate Agriculture Students’ Association
The Director - PGIA, Congress Coordinator
&
The Congress Organizing Committee
Appreciate the generous support given by the following
Sponsors and Contributors

University Grants Commission

InRC, University of Peradeniya

GEF – UNDP – ILRI FAnGR Project

Council for Agricultural Research Policy (CARP)

People’s Bank, Peradeniya

Bank of Ceylon, Peradeniya

Ceylon Tobacco Company PLC
Message from the Director

Prof. S. Samita
Director
Postgraduate Institute of Agriculture

It is a great pleasure and privilege to write this message on the occasion of 26th Annual Congress of the Postgraduate Institute of Agriculture, 2014. The Annual Congress of the Institute is one of the most important events of the PGIA Calendar. From the inception of the Annual Congress in 1989, Annual Congress has been improving continuously. Compared to 1989, now it has achieved a tremendous improvement. The uniqueness of the PGIA Annual Congress is that this is the only forum in Sri Lanka specifically organized for postgraduate research work to be presented. Initially, opportunities were given only for Sri Lankan postgraduate work to be presented but now it is open for postgraduate work taking place in other countries as well. With the international participation, Sri Lankan postgraduates have the opportunity to compete with postgraduates of international standards. In fact this international participation has paved the way to improve the standards of the PGIA Annual Congress.

Organizing the Annual Congress has been a hard task for all Congress Coordinators. As the Director of the Institute, I congratulate the Coordinator of 26th Congress Dr. S. Pathmarajah and his team, referees and editors for this untiring effort to make the 26th Annual Congress a grand success.

I appreciate the support and cooperation received from the members of the Organizing Committee, Boards of Study, PGIA staff and students towards making this event a remarkable one. I also take this opportunity to express my sincere gratitude to the sponsors and contributors to make this event a monumental success.

Prof. S. Samita
Message from the Chief Guest

Dr. Steven J. Staal
ILRI Regional Representative for East and Southeast Asia

I am delighted and honoured to participate in the 2014, 26th Annual Congress of the Postgraduate Institute of Agriculture (PGIA) of the University of Peradeniya. I believe that the aims of my organization, the International Livestock Research Institute (ILRI) align very closely with those of the University, with which ILRI has partnered for many years.

ILRI works to improve food security and reduce poverty in developing countries through research for better and more sustainable use of livestock, in essence “better lives through livestock”. ILRI is a member of the CGIAR Consortium which works for a food-secure future. In ILRI’s new strategy to 2022 (http://ilri.org/mission) we are focusing on three main areas of achievement: developing, testing and promoting science-based livestock system practices, providing compelling evidence to persuade decision makers that smarter policies and larger livestock investments can deliver significant socio-economic and other dividends to nations and households, and to partner to increase capacity of key stakeholders to make better use of livestock science and investments for better lives through livestock. Many of the issues we address in our research cut across all agricultural commodities and include the dynamic forces and consequent challenges that face the smallholder agricultural producers who continue to produce most of the food in developing countries, and whose evolution and welfare is critical to rural development. I will address some of these issues in my talk to the Congress.

ILRI is proud to have partnered with the University of Peradeniya since 1998, when at the request of the Ministry of Livestock and Rural Development, we jointly assisted the Sri Lankan Government to conduct an appraisal of the dairy sector in Sri Lanka, the recommendations from which I understand have been brought into practice by many different livestock stakeholders. We subsequently partnered in a multi-country (Bangladesh, Pakistan, Sri Lanka and Vietnam) project on ‘Indigenous Farm Animal Genetic Resources, for which the University of Peradeniya was the national executing agency. As this project is shortly coming to an end, a 1-day symposium on ‘Farm Animal Genetics Resources: Conservation through Utilization’ under the auspices of PGIA/UNIPER will be held on 22nd November, shortly after this Congress and will be attending by scientists Bangladesh, Pakistan, Vietnam, India, Philippines, Nepal, Indonesia and of course, Sri Lanka. Over the years ILRI has also supported the training of scientists from multiple faculties in Sri Lanka on molecular characterization techniques at the ILRI-CAAS joint lab in Beijing, China. On a personal note, I was part of the initial ILRI collaboration with the University in 1998, and so am particularly pleased to return to participate in this important event. I look forward to hearing about the exciting science emerging from the research of the students of PGIA, and extend my best wishes for their continued growth and contributions to meeting the needs of agricultural producers and systems in Sri Lanka and far beyond.

Steven J. Staal
Message from the Vice-Chancellor

Prof. Atula Senaratne
Vice Chancellor
University of Peradeniya

I am most privileged to issue a message to the 26th Annual Congress of the Postgraduate Institute of Agriculture of the University of Peradeniya to be held from 20th - 21 November, 2014.

The Annual Congress is the most important scientific event organized by the Postgraduate Institute of Agriculture. The congress provides an opportunity for postgraduate students to present their research findings to a wider audience and to interact with experts in their relevant fields. I am confident that research output of the postgraduate students will immensely benefit to develop partnerships with the industry which leads towards the sustainable economic development of the country.

I take this opportunity to congratulate the Director of the PGIA, Congress Coordinator and the Congress Organizing Committee for their tremendous efforts in organizing the “26th PGIA Annual Congress” in a very professional manner. I am certain that this congress too will offer more prospects to strengthen the research network in sharing information, knowledge and to assess the quality of postgraduate studies in agriculture and related fields.

I wish the congress a great success.

Prof. Atula Senaratne
Message from the Dean

Prof. K. Samarasinghe
Dean
Faculty of Agriculture

It is a great pleasure to release this message to the 26th Annual Congress of the Post Graduate Institute of Agriculture which is renowned as one of the oldest annual scientific fora in the island and recognized as a prominent event of the University of Peradeniya. The annual congress has been continuously held successfully in a well organized manner for more than 25 years, broadening its wings to reach the horizons far beyond the country. I strongly believe the 26th Annual Congress is another successful footstep took forward in the pathway of knowledge generation and dissemination by the PGIA.

It is tremendously important and vital to blend the wisdom of young scientists especially in the field of agricultural sciences who are capable and enriched with knowledge and skills in addressing stressing issues of the present globe in the streams of food security, sustainability, environmental conservation, energy and human health. I have no doubts that the 26th Annual Congress will provide a unique platform for young scientists, the torchbearers of future mankind to present their research findings, share knowledge and advances in research and development to build networks of professionals, researchers, educators and policy-makers in agriculture and allied sectors while exposing to a wider range of audience. Further, it will promote forward-thinking, insightful and valuable perspectives on the strategic challenges of the agriculture and allied sectors.

The participants will witness challenging and enriching series of research projects carried out by postgraduates and researchers from both Faculty of Agriculture and PGIA. The students are provided with substantial opportunities to interact with distinguished experts and work in collaboration with industries to capture the insights of the industry requirements, discipline thinking and develop skills in order to work harmoniously with the research needs of the industry outside academia. It endeavors to interlace the learning and education process with ideals to shape the students and mold them into professionals with a strong sense of work ethics.

Beyond a shadow of a doubt, I can expect that high quality research sessions and the unique inaugural session will cater the demands of the participants to a maximum level of satisfaction and guarantee a memorable experience. I take this opportunity to congratulate this year’s Congress Coordinator, Director/PGIA and the Organizing Committee for their untiring effort in organizing the event. Finally, I wish all the postgraduates a successful career and I expect that they will step forward to make a notable and significant impact all over the globe.

I wish the 26th Annual Congress every success.

Prof. K. Samarasinghe
Message from the President

Ms. Dinali Fernando  
Postgraduate Institute of Agriculture  
Postgraduate Agriculture  
Students Association (PASA)

It is with great pleasure I convey this message on behalf of the Postgraduate Agriculture Students’ Association (PASA) on the occasion of 26th Annual congress of the Postgraduate Institute of Agriculture (PGIA).

PGIA is the pioneer institute in postgraduate agricultural education in Sri Lanka. It contributes not only for the agricultural and economic development of the country through advancement of knowledge and technology, but also for the whole agricultural world by creating professional human resources.

The Annual Congress is the most prestigious event organized by the staff and the students of the PGIA. It provides a precious opportunity for graduate research students in Agricultural and Allied Science disciplines to present their latest research findings at an international forum. It also creates the environment for those students to get exposed and experienced of an international scientific event and to interact with the experts in their fields. I really appreciate the initiative taken by PGIA, and invite all my peer graduate students to make use of this magnificent opportunity to enrich their research careers.

I wish to take this opportunity to congratulate the Director of the PGIA, the Coordinator and the Organizing Committee of the 26th Annual Congress, for the untiring efforts made to make this event a success.

PASA wishes the 26th Annual Congress of the PGIA a grand success.

Ms. Dinali Fernando
Message of the Congress Coordinator

26th Annual Congress
Postgraduate Institute of Agriculture

Dr. S. Pathmarajah
Department of Agricultural Engineering
Faculty of Agriculture
University of Peradeniya

It is my great pleasure to write this message on behalf of the Organizing Committee of the 26th Annual Congress of the Post Graduate Institute of Agriculture (PGIA), University of Peradeniya, Sri Lanka. First of all, let me welcome you all to this leading annual congress that has been providing platform for young scientists to present, discuss, debate and validate their postgraduate research findings at a distinguished forum.

We have outstanding events in line for you for two days, and for that, I thank all of you - the PGIA administration, the organizing committee members, the authors, the reviewers, the invited speakers, the sponsors, and the audience. This event would not be a success if it weren’t for your involvement.

The theme of the congress for this year is "Farmer, Family and Food Security". The theme was acquired to mark the international year of family farming. This year, we received 108 submissions. The peer review process resulted in accepting 49 full papers and 24 posters to present at this congress and publish in the Journal Tropical Agricultural Research, Vol. 26, which will be published in four issues. In addition, the event is enriched by invited presentations of the eminent scientists from different institutions from different parts of the world.

I take this opportunity to thank and congratulate the past coordinators of the PGIA Annual Congress and their teams for keeping the flame of knowledge burning for the past 25 years. I also wish to thank my own organizing committee and the supporting staff who enabled me to carry the torch throughout this year.

I wish all the presenters and the participants a very successful congress and pleasant stay in Kandy.

Dr. S. Pathmarajah
Congress Coordinator - 2014
Past Directors

Prof. Colin N. Peiris  October 2011 – June 2014
Prof. A.L.T. Perera  August 2006 - September 2011
Prof. R.O. Thattil  January 2002 – August 2006
Prof. Y.D.A. Senanayake  January 1987 – March 1997
Prof. H.P.M. Gunasena  March 1997 – January 2002
Prof. T. Jogaratnam  February 1978 – December 1986
Prof. R.R. Appadurai  June 1975 – February 1978

Past Congress Coordinators

Dr. (Ms) R.M. Fonseka  2013

Dr. T. Sivanathawerl  - 2012  Dr. N.A.S.S.P. Nissanka  - 2000
Prof. (Ms) R.P. Karunagoda  - 2011  Prof. (Ms) S.E. Peiris  - 1999
Dr. W.M.T. Madhujith  - 2010  Prof. B. Marambe  - 1998
Prof. (Ms) J.P. Eeswara  - 2009  Prof. (Ms) D. Kumaragamage  - 1997
Dr. K.S. Hemachandra  - 2008  Prof. B.C.N. Peiris  - 1996
Dr. (Ms) M. Wickramasinghe  - 2007  Prof. (Ms) E.R.K. Perera  - 1995
Dr. L.W. Galagedara  - 2006  Prof. A.R. Ariyaratne  - 1994
Prof. (Ms) A. Ariyawardana  - 2005  Dr. (Ms) A.A. Jayasekara  - 1993
Prof. C.M.B. Dematawewa  - 2004  Dr. M.W.A.P. Jayatilaka  - 1992
Prof. (Ms) S.P. Indraratne  - 2003  Prof. (Ms) D.C. Bandara  - 1991
Prof. (Ms) G.L.L.P. Silva  - 2001  Prof. J.M.R.S. Bandara  - 1989

Officers of the PGIA

Prof. S. Samita, Director
Ms. S. Herath, Deputy Registrar
Ms. I. Mudannayake, Senior Assistant Librarian
Mr. B.G.S.P. Jayakody, Senior Assistant Bursar
Ms. K. Herath, Assistant Registrar
Mr. A.G.I. Hemajith, Systems Analyst
Organizing Committee

Main Committee

Prof. S. Samita, Director, PGIA
Ms. S. Herath, Deputy Registrar, PGIA
Mr. B.G.S.P. Jayakody, Senior Assistant Bursar, PGIA
Ms. I. Mudannayake, Senior Assistant Librarian, PGIA
Ms. K. Herath, Assistant Registrar, PGIA
Mr. A.G.I. Hemajith, Systems Analyst, PGIA
Dr. S. Pathmarajah, Congress Coordinator 2014
Dr. (Ms) R.M. Fonseka, Congress Coordinator 2013
Dr. T. Sivananthawerl, Congress Coordinator 2012
Dr. W.M.T. Madhujith, Congress Coordinator 2010
Prof. (Ms) J.P. Eeswara, Congress Coordinator 2009
Dr. K.S. Hemachandra, Congress Coordinator 2008
Dr. (Ms) M. Wickramasinghe, Congress Coordinator 2007
Prof. D.K.N.G. Pushpakumara, Congress Coordinator 2002
Prof. (Ms) G.L.L.P. Silva, Congress Coordinator 2001
Dr. N.A.S.S.P. Nissanka, Congress Coordinator 2000
Prof. (Ms) S.E. Peiris, Congress Coordinator 1999
Prof. B. Marambe, Congress Coordinator 1998
Prof. (Ms) E.R.K. Perera, Congress Coordinator 1995
Prof. A.R. Ariyaratne, Congress Coordinator 1994
Prof. (Ms) D.C. Bandara, Congress Coordinator 1991
Prof. (Ms) K.M.S. Wimalasiri, Chairperson, Sub – Committee I
Dr. (Ms) N.D.K. Dayawansa, Chairperson, Sub – Committee II
Dr. M. Ariyarathe, Chairperson, Sub – Committee III
Ms. D. Fernando, President - PASA
Ms. K. Dissanayake, Secretary - PASA
ORGANIZING COMMITTEE

Sub - Committee I (Sessions/Registration)

Prof. (Ms) K.M.S. Wimalasiri (Chairperson)

Prof. B. Marambe
Prof. (Ms) J. Weerahewa
Prof. (Ms) G.L.L.P. Silva
Prof. D.A.N. Dharmasena
Prof. (Ms) J.P. Eeswara
Prof. V.A. Sumanasinghe
Prof. L.H.P. Gunarathna
Prof. W.A.P. Weerakkodi
Prof. D.K.N.G. Pushpakumara
Dr. R. M. Fonseka
Dr. (Ms) A.J. Mohotti
Dr. U. Vitharana
Dr. C.K. Benaragama

Dr. J.P. Keerthisinghe
Dr. (Ms) W.S. Dandeniya
Dr. (Ms) Pradeepa Bandaranayake
Dr. J.K. Vidyaratne
Dr. K.S.P. Amaratunga
Dr. (Ms) N.D.K. Dayawansa
Dr. S. De Silva
Dr. (Ms) H.A.M. Wickramasinghe
Dr. T. Madhujith
Dr. B. Jayawardene
Mr. Kumara Mahipala
Ms. C. Dahanayake
Ms. S. Herath

Sub – Committee II (Publicity/Fund Rising)

Dr. (Ms) N.D.K. Dayawansa (Chairperson)

Prof. B.F.A. Basnayaka
Dr. (Ms) R.M. Fonseka
Prof. U. Edirisinghe
Prof. B. Marambe
Ms. I. Mudannayake
Mr. S.P. Jayakody

Sub – Committee III (Logistics)

Dr. M. Ariyaratne (Chairperson)

Prof. (Ms) S.E. Peiris
Dr. R.M.C. Deshapriya
Dr. T. Sivananthawerl
Dr. U. Vitharana
Prof. D.K.N.G. Pushpakumara
Dr. (Ms) R.M. Fonseka
Dr. M.I.M. Mowjood
Dr. (Ms) S.M.C. Himali
Dr. T. Madujith
Dr. (Ms) A.J. Mohotti
Dr. B.C. Jayawardane
Dr. W.S. Dandeniya
Dr. (Ms) Pradeepa Bandaranayake
Ms. K. Herath

Ms. C. Dahanayake
Congress Office Secretaries

Mr. Samantha Thilakarathne
Mr. Gihan Sanjeewa
Ms. R.G.M. Nadeeshan