

Chairman, PNASF Speaks

We all are products of nature, whether earth, sun, air, plant, livestock or human. Each being, plant, livestock or human shelters on earth without which the existence of any one of them is impossible and that is why it (earth) is designated as mother nature. What all living beings viz., plant, livestock and human do is to bask in the sun, breathe fresh air and drink water and look for food. Human being, being the smarter one has understood this natural phenomena. Human has also understood that 'food' is the prime substance for his/her survival or continuity of life. Further, human observations confirmed that food sources or other living beings are solely dependent on Mother Nature. With the advancement of knowledge and science of food and agriculture, we know that humans cannot survive without food and food is to be produced enough for all. But when we look into development of food production and population increase, the food availability does not match with each other. Further, researches and analysis on food have provided deep insight into the mystery of 'food' which is a reservoir of chemical elements required for betterment of human growth and development. We know now that these chemical substances are essential for human health and designated as 'nutrients'.



Dr. Prem Nath

The word food, in a sense is more dynamic, However, the presently available scientific knowledge the term 'food' has become more vague: whether crop plant produce or live stock product and what it contains!!! The knowledge bound consumer needs to know what food, what food to buy, how much to buy, how much to consume and what health benefits to keep a sound health?

In the present context, we had heard of three common words viz., food hunger, nutrient hunger and knowledge hunger. The food hunger speaks of non-accessibility of food; nutrient hunger deals with micro-nutrient deficiency resulting in severe human maladies; if both food and nutrients are made accessible and available, the consumers still need basic knowledge which are not available to millions and billions of consumers in the developing world. The above three hungers are closely related to each other and have great bearing on mitigating food and nutrition insecurity.

The situation is aggravated with the news of present 'food and nutrition crises facing particularly the developing world. The reports of about 805 million hungry and malnourished people, food crisis coupled with over three billion people suffering and signaling micro-nutrients deficiencies causing nutrient crisis demand for serious action against these major maladies damaging human resources. We do not have time to wait and see but to respond and act without delay.

While addressing the major elements and issues on food and nutrition security taking its birth from nutrients, it is imperative that its value in the form of nutrient as the focal and central point is considered and prioritized to ensure food and nutrition security.

The new PNASF publication entitled, "Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human" runs deep into issues of nutrients, nutrition and nutrition security.

Prem Nath

Prem Nath
 Chairman, PNASF

EVENTS

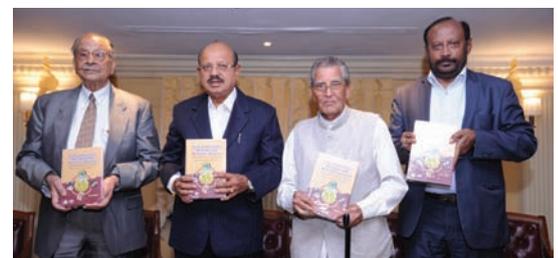
PNASF Book Release Ceremony and Announcement of PNASF/UHSB Research Project

A. Book Release Ceremony

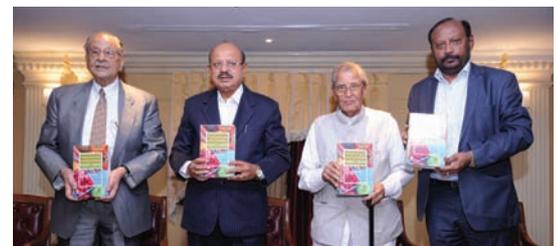
In the series of the PNASF Book-Release Celebrations over the years, the seventh such ceremony organized on March 02, 2018 at 1800-1930 hrs at The ITC Windsor Manor, Bengaluru. The books entitled (1) "Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human" and (2) "Sustainable Horticultural Development and Nutrition Security" were released ceremoniously.



Dignitaries at the dais during the function



Release of the first book entitled, "Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human"



Release of the second book entitled, "Sustainable Horticultural Development and Nutrition Security"

EVENTS

Hon. Shri T.B. Jayachandra, Minister for Law, Justice and Human Rights; Parliamentary Affairs and Legislation; and Higher Education, Government of Karnataka, was the Chief Guest and **Hon. Shri M.V. Rajasekharan**, former Minister of State for Planning, Government of India, New Delhi and **Dr. D. L. Maheswar**, Vice-Chancellor, University of Horticultural Sciences, Bagalkot, Karnataka graced the function as Guests of Honour and released the books.



Book Release Ceremony hosted by PNASF Board of Trustee, Ms. Shyamla Nath

The lead scientists from agricultural/horticultural universities and research institutes and senior Government officials of Karnataka were the invitees. Some of the important dignitaries present were Dr. V. N. Shenoi (IAS), former Special Secretary, GOI, Bengaluru; Mr. N.S. Megharik (IPS), DGP, Govt. of Karnataka, Bengaluru; Dr. G.K. Veeresh, former Vice Chancellor, UAS, Bengaluru; Prof. R.N.S. Gowda, former VC, Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar; Prof. R. S. Deshpande, former Director, ISEC, Bengaluru; Dr. K. P. Vasanth Shetty, Director, Indo-American Hybrid Seeds (India), Bengaluru; Dr. C. P. A. Iyer, former Director, Central Institute Horticulture, Lucknow; Dr. P. Parvatha Reddy, former Director, IIHR; Dr. M. Seenappa, former UNICEF, Bengaluru; Dr. H. N. B. Gopalan, former UNEP, Bengaluru; Dr. K. Santhanam, Bengaluru; Mrs. Magdalene Chand, UNICEF, Bengaluru; Dr. A. T. Sadashiva, IIHR, Bengaluru; Dr. R. Veere Gowda, IIHR, Bengaluru; Dr. Ashok S. Alur, Special Officer (PPMC), UHS, Bengaluru; Dr. C. Aswath, IIHR, Bengaluru; Dr. R. B. Gaddagimath, Dean, Learning Resources and Academic



Welcoming Address by Dr. P. Parvatha Reddy, Senior Scientific Councillor, PNASF, Bengaluru

Support Acharya Institutes, Bengaluru; Dr. H. B. Shivaleela, UAS, GKVK, Bengaluru; Dr. D. Vijayalakshmi, UAS, GKVK, Bengaluru; Mr. Janakiram Sreenivas Ayyar, former UNESCO, Bengaluru; Dr. B. N. Viswanath, Bengaluru and other distinguished dignitaries.

On behalf of the PNASF, Dr. P. Parvatha Reddy, Senior Scientific Councillor, PNASF, Bengaluru welcomed the Chief Guest, Guests of Honor, other dignitaries and all invitees.



Keynote Address by Chairman, PNASF, Dr. Prem Nath



Honorable Minister for Law, Justice and Human Rights; Parliamentary Affairs and Legislation; and High Education, Govt. of Karnataka, Shri T.B. Jayachandra delivering Chief Guest Speech

In his Keynote address, Dr. Prem Nath extended a warm welcome to the Chief Guest and Guests of Honour on the dais, the dignitaries and all invitees in the audience and explained the mission, objectives and contents of the first two Volumes of the book. Further, he duly acknowledged the contribution of authors, editors and reviewers in fulfilling the mission of these publications. The details of his statement appear at the end of this report.

B. Announcing PNASF/UHSB Research Project

Introduction of the "PNASF/UHSB Research Project on *Mangalore Southekeyi*"

● Dr. O.P. Dutta, Senior Scientific Councillor, PNASF, Bengaluru

On this occasion, Dr. O.P. Dutta introduced the joint project by explaining the emerging importance of *Mangalore Southekeyi*, aims, objectives and expected outcome of the project in furthering knowledge on this crop. He further emphasized the importance of this crop in improving muskmelon crop.



Dr. O.P. Dutta

● Dr. K.M. Indires, UHSB, Bagalkot

Dr. K. M. Indires highlighted growing importance of *Mangalore Southekeyi* crop and significance of the research project formulation for consumers of the region. He indicated the importance of collaborative research between the governmental and non-governmental institutions.



Dr. K.M. Indires



Audience during the function

EVENTS

While narrating his association with the PNASF, Dr. D.L. Maheswar, Vice-Chancellor, UHS, Bagalkot thanked PNASF and particularly Dr. Prem Nath for inviting him to this function. Dr. Maheswar highlighted the work done on horticultural sciences in education, research and extension and the significant achievement made. He highlighted the joint association between UHSB and PNASF in the form of a governmental and non-governmental institution as a pioneer example in promoting, strengthening and sharing horticultural research partnership.



Hon. Vice-Chancellor, University of Horticultural Sciences, Bagalkot, Karnataka, Dr. D. L. Maheswar, delivering speech

PNASF and its activities for the benefit of farmers, consumers, scientists and professors and above all for the benefit of the human beings. He highlighted on the development of Indian agriculture with particular reference to State of Karnataka and appreciated the contributions of scientist and farmers in boosting food production. He appreciated the efforts of PNASF in preparing and publishing the new volumes released.



Hon. Shri T. B. Jayachandra delivering speech

Shri M.V. Rajasekharan spoke vividly on the activities of PNASF and his association with it. He highlighted on the progress made in food and agriculture nation-wide and focussed on food insecurity plaguing millions in the whole world. He applauded the contribution of agricultural scientists and farmers. He recognized the valued contribution of PNASF in publishing these valuable publications.



Hon. Shri M. V. Rajasekharan delivering speech



PNASF team and some authors of the books along with Dignitaries

Addressing the distinguished audience **Honorable Shri. T.B. Jayachandra** recalled of his 15 years of association with the



Memento presented to Shri T.B. Jayachandra by Dr. Prem Nath



Memento presented to Shri M.V. Rajasekharan by Dr. Prem Nath



Memento presented to Dr. D. L. Maheswar by Dr. Prem Nath



The high-tea during the function

praiseworthy. The trustee Ms. Shyamla Nath participated actively and pioneered the minute-to-minute programme of the function in the dedicated manner.

The moral strength received from PNASF/TAC members abroad and dedicated efforts on the ground by the Bengaluru-based TAC members have demonstrated the contribution of PNASF in the form of valuable book and established the recognition of PNASF as one of the premier agricultural institutions.



Vote of Thanks by Ms. Shyamla Nath, Trustee, PNASF, Bengaluru

On behalf of PNASF, Ms. Shyamla Nath, Trustee, PNASF, Bengaluru extended vote of thanks. A warm appreciation and acknowledgement was extended by Ms. Nath, to dignitaries on and off the dais, all invitees, press media, television and radio who extended all support to the event.

Key Note Address by Dr. Prem Nath

Honorable Shri T.B. Jayachandra, Minister for Law; Parliamentary Affairs and Minor Irrigation, Govt. of Karnataka; **Honorable Shri M.V. Rajasekharan**, former Union Minister of State for Planning, Government of India; **Dr. D. L. Maheswar**, Vice-Chancellor, University of Horticultural Sciences, Bagalkot, Karnataka.

Dignitaries in the audience; Ladies and Gentlemen!

On behalf of the P. N. Agricultural Science Foundation, Bengaluru, I consider it an honor and privilege to welcome you heartily to this event hosted at the ITC Windsor Manor, Bengaluru.

The PNASF was launched during the dawn of the new millennium i.e. 2000 in Bengaluru. The PNASF has the mission to promote food and nutrition security. This was the same year when United Nations Millennium Development Goals (MDGs) 2000 was launched with the Agenda No. 1 "Eradicate extreme poverty and hunger".

- Now the UN Sustainable Development Goal 2 of SDG reads "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" committed by all nations including India.
- In line with above, the PNASF has made a humble attempt to put a drop in the ocean of efforts towards achieving this goal.
- The most important achievement of by PNASF within the last decade has been the publication of **five** volumes on the Basics of Human Civilization- Food, Agriculture and Humanity.

- I. **Present Scenario,**
- II. **Food**
- III. **Agriculture**

IV. **Humanity in Humans, by Humans for Humans in Securing Food for All and**

V. **Food Expectations of the People**

On completion of these volumes, the PNASF launched a new series of volumes on **Food and Nutrition Security**. The first volume entitled, "**Attaining Food and Nutritional Security in the Developing World**" was released during 2017.

Now two volumes to be released are: **Volume-II:** Cycle of Nutrients, Nutrition and Nutrition Security In Earth, Plant, Livestock and Human and **Volume-III:** Sustainable Horticulture Development and Nutrition Security.

As understood today, the **Food and Nutrition Security (FNS)** means feeding about 800 million people who are hungry and malnourished. Every individual needs at least two nutritious meals every day, for which he or she has to strive. This cannot be achieved by merely producing more food only but also should have the means to access food. Food and Nutrition Security for all cannot be attained unless everyone has food accessibility and food accessibility cannot be attained unless everyone has economic accessibility or purchasing power and economic accessibility can be attained only if everyone has access to earning (Nath, 2016).

About PNASF Books released

● **Cycle of Nutrients, Nutrition and Nutrition Security In Earth, Plant, Livestock and Human (2018)**

At the present stage of scientific knowledge available and in the present digital world, the term '**food**' seems to be vague, which does not indicate whether it is crop plant or livestock product and what **nutrient** it contains? The consumer needs to know what food to buy, how much to buy and how much to consume to keep health good?

The situation is aggravated with the news of present 'food and nutrition crisis' facing particularly the developing world. The reports of about **805 million** hungry and malnourished people food crisis coupled with **over three billion** people suffering and signalling micro-nutrients deficiencies causing nutrient crisis demand for serious action against these major maladies damaging human resources. We do not have time to wait and see but to respond without delay.

Presently, food policy and planning, budget and projections are *grain-biased* in the world and nations; it is high time to project and estimate in terms of *nutrient-based* including all crops e.g. cereals, legumes, vegetables, fruits, and roots, which offer balanced nutrition in favor of overall growth and health development of the people.

The nutrient cycle of earth, of plant, of livestock and of human form multiple nutrient cycles, which end in a larger nutrient cycle consisting of earth, plant, livestock and human, of course, with both nature and human interventions. The nutrient cycle in each being and the larger nutrient cycle of all beings need to be alive and continuity of nutrient chain needs to be safeguarded in order to avoid nutrient crisis which in turn will affect the food and nutrition security adversely. In other words, nutrition security of each earth

or soil, plant or livestock and human need to be safeguarded in the interest of all beings including human being.

The present publication authored by me comprises of 13 chapters 23 articles and 400 hundred pages. It makes discussion on all aspects of nutrients, nutrition and nutrition security and details nutrients cycles in **Earth, Plant, Livestock and Human**.

● Sustainable Horticulture Development and Nutrition Security”

In the food domain, cereal and legume grains occupy the front line, whereas, horticultural crops have assumed the second line of defense. For healthy diet cereals and legumes provide us with carbohydrates and protein. Whereas, fruits and vegetables provide us minerals and vitamins. Both macro and micro-nutrients are essential for human growth and development. The fruits and vegetables are the major source of micro-nutrients.

Fruit and vegetables are important components of a healthy diet and, if consumed daily in sufficient amounts, could help prevent major diseases, such as, CVDs and certain cancers. According to The World Health Report 2002, low fruit and vegetable intake estimated to cause about 31% of ischemic heart disease and 11% of stroke worldwide. Overall it is estimated that up to 2.7 million lives could potentially be saved each year, if fruit and vegetable consumption was sufficiently increased.

Sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” and calls for “building an inclusive, sustainable and resilient future for people and the planet” (United Nations World Commission on Environment and Development, 1987).

The present publication has attempted to reflect and discuss the above views and ideas on the subject of sustainable horticulture development and nutrition security in 9 chapters with **32 articles** by **32 authors** covering a total of **650 pages**.

- ◆ The PNASF has profound appreciation for the valuable contribution made by all authors present and those who have conveyed their greetings from distance. PNASF places on record the contribution and appreciation of the editors namely, Dr. C.P.A. Iyer, Dr. O.P. Dutta, Dr. K.R.M. Swamy, Dr. B.S. Prabhakar and Mr. P. B. Gaddagimath. Equally, acknowledgement is made to the contribution of all reviewers, which enhanced the quality of the books published.
- ◆ Human leaders and lead professionals have blessed these volumes with Messages to whom PNASF expresses great appreciation and gratitude. Among those are Shri T.B. Jayachandra ji and Shri M.V. Rajasekharan ji, Dr. H. Shivanna, Dr. D.L. Maheswar, who have written their best wishes to these publications.
- ◆ The Volume-II is published jointly by M/s Westville Publishing House, New Delhi and Volume-III jointly Scientific Publishers, Jodhpur, and to whom we thank immensely. The credit of beautifully presenting these books of international standard and in time, goes to publishers.

- ◆ *It is expected that the present publications will enlighten the readers and disseminate the message in line with the title and theme of the book and subject.*

About the PNASF/UHSB Research Project

It is a story and journey of 45 years which I wish to relate in less than 5 minutes.

During 1969, along with late Mr. H.P. Ramakrishna of Lalbagh, I visited the Dharmasthala Temple and had good darshan and lunch. Later we visited the temple food store. As a vegetable breeder, I was extremely fascinated to see plenty of germplasm stocks of pumpkin, ashgourd and Mangalore Southekeyi! At that time at IIHR, my priority was pumpkin and considered southekeyi as a minor crop. On return from FAO in 2000, I saw the southekeyi common in vegetable shops of Bengaluru, and Kerala, Tamil Nadu, Andhra Pradesh and Goa. Later I was surprised to see southekeyi in Los Angeles, and Toronto and last year I saw it in the Indian Store in Silicon Valley area of California and the shop-keeper informed me, he (originally from Gujarat) was growing it at his own farm.

About 15 years ago, my colleague Dr. O.P. Dutta offered me fresh juice of ashgourd, bottlegourd and southekeyi separately. I continue to take it even today because it suits my taste and health. Since then I have been trying to collect literature on southekeyi and discuss with colleagues.

On reviewing of literature on southekeyi, it was clear that (a) its origin was not clear, (b) botanical classification was doubtful and (c) genetic and breeding behavior less known. Since it was relative to muskmelon and crossability between the two was possible, I questioned myself why not transfer the long-shelf life behaviors of *southe* to muskmelon and introduce melon fruit quality to southe? Imagine will bring about revolution in muskmelon breeding worldwide. A step towards attaining food and nutrition security.

About 9 months ago, I offered UHS to take up this research project and the Vice-chancellor, Dr. D.L. Maheswar readily and happily accepted this. The senior scientists of PNASF and UHS had brainstorming sessions and the project document was finalized and approved. With the above background, my vision is to see improved *Mangalore Southekeyi* not only in Karnataka but throughout the nation and beyond. In order to fulfill this mission and vision, the PNASF is pleased to grant a sum of Rs. 12, 55,000/- (Rupees Twelve Lakh and Fifty Five Thousand), along with the free interaction with PNASF scientists to the UHS for a period of 2 years. My hearty thanks to Dr. Maheswar and his colleagues.

All invitees

- ◆ All the volumes of PNASF are on display in the interest of participants and the press media.
- ◆ Our Chief Guest, respected dignitaries on the dais, distinguished guests, Ladies and Gentlemen, Press Media, and staff of ITC Windsor Manor, on behalf of the P. N. Agricultural Science Foundation and its collaborators, I thank you immensely for your kind support and active participation.

EVENTS

Signing Ceremony of The Memorandum of Association Between Dr. P. N. Agriculture Science Foundation (PNASF), Bengaluru and University of Horticultural Sciences (UHSB), Bagalkot

On Thursday, February, 8, 2018 at 11:00 AM, the P. N. Agricultural Science Foundation, Bengaluru and University of Horticultural Sciences, Bagalkot signed the Memorandum of Association to implement the **Research Project** entitled, "Studies on morphological and molecular diversity of South Indian landraces of *Mangalore Southekeyi* (*Cucumis melo* var. *conomon*)"



Chairman, Dr. P. N. Agricultural Science Foundation, Bengaluru and Vice Chancellor, University of Horticultural Sciences, Bagalkot, Karnataka signed the Memorandum of Association

at the Vice Chancellor's Meeting Hall of the Regional Office, University of Horticultural Sciences Campus, GKVK, Bengaluru. In this document the two institutions have agreed that the PNASF will support the research project for a total sum of **Rs. 12,55,000/-** for a period of two years, 2018 and 2019 and the UHSB will implement the project within the period agreed.



Mangalore Southekeyi (Cucumis melo var. conomon)

The Memorandum of Association was signed between the Vice Chancellor, Dr. D. L. Maheswar, UHSB and Chairman, PNASF, Dr. Prem Nath, Bengaluru. About 25 faculty members of UHSB and Member Trustee Ms. Shyamla Nath and TAC members PNASF attended the ceremony. The significance and objectives of the project were explained and meeting ended with the vote of thanks.

Courtesy Call Upon Hon. Minister Shri T.B. Jayachandra

Dr. Prem Nath made a courtesy call upon Hon. Shri. T.B. Jayachandra, Minister for Law, Justice and Human Rights; Parliamentary Affairs and Legislation; and Animal Husbandry, Government of Karnataka at his office in Vidhana Soudha, Bengaluru on February 09, 2018. On exchanging their greetings, Dr. Nath appraised the honorable Minister with activities of the PNASF. On behalf of PNASF, Dr. Nath invited the minister to grace the occasion of the **Ceremony of Book Release and Announcing PNASF/UHSB Research Project on Mangalore Southekeyi** as the **Chief Guest** scheduled on Friday, March 02, 2018 at 1800-1930 hrs at the ITC Windsor Manor, Bengaluru.



Dr. Prem Nath with Hon. Shri. T.B. Jayachandra

The Honorable Minister appreciated the activities of the PNASF and accepted to grace the occasion as a Chief Guest.

Visit To Mr. S.S. Mallikarjun, Minister For Horticulture and Agro-Marketing

On February 26, 2018, Dr. Prem Nath and Dr. K.R.M. Swamy of PNASF and Dr. Ashok Alur of University of Horticultural Sciences, Bagalkot made a courtesy call upon the Hon. Minister for Horticulture and Agricultural Marketing, Mr. S.S. Mallikarjun in his office. Dr. Prem Nath appraised the Hon. Minister with the activities of the PNASF focussing on food and nutrition security.



Hon. Minister Shri. S.S. Mallikarjun

EVENTS / RESEARCH AND DEVELOPMENT SUPPORT

On behalf of PNASF, Dr. Nath invited the honourable minister to grace the event of the **Ceremony of Book Release and Announcing PNASF/UHSB Research Project** scheduled on Friday, March 02, 2018 at 1800-1930 hrs at the ITC Windsor Manor, Bengaluru. In spite of his heavy engagements, the honourable minister accepted the invitation as the Guest of Honor. Dr. Nath thanked minister for accepting invitation.

12th National Symposium on “Noni and Herbal Wealth for Sustainable Wellness”

On invitation by the International Society for Noni Science, Chennai, Dr. Prem Nath participated in the 12th National Symposium on “Noni and Herbal Wealth for Sustainable Wellness” scheduled on March 24-25, 2018 at the College of Agriculture, Pune.

During this event Dr. Prem Nath was conferred with the fellowship of ISNS by the President, ISNS, Dr. Kirti Singh. Dr. Prem Nath chaired the Bio-diversity session.

Hundreds of participants including number of Vice-chancellors and scientists from various universities and states participated.

The 52nd Convocation of University of Agricultural Sciences, Bengaluru (UASB)

The 52nd Convocation of University of Agricultural Sciences, Bengaluru (UASB) was held on February 09, 2018. Dr. Manju Sharma, former Secretary, Department of Biotechnology, New Delhi, Government of India, delivered the Convocation address as the Chief Guest. His Excellency Governor of Karnataka Shri Vajubhai Vala and Chancellor of UASB, conferred degrees and presided over the event. Shri Krishna Byre Gowda, Minister for Agricultural Sciences and Pro Chancellor of UASB participated.

For the 55 gold medalists who graduated from the University of Agricultural Sciences (UAS), Bengaluru, learning went beyond the classroom. Their own fields were their labs, as they put into practice what they read in their textbooks. A majority of the gold medals awarded at the 52nd annual convocation of the University of Agricultural Sciences, Bengaluru were bagged by women. As many as 83 of the total 118 gold medals were bagged by 37 girls. The PNASF Gold Award 2018 was bagged by Mr. Manojkumar H.B., in Department of Plant Biotechnology.

RESEARCH AND DEVELOPMENT SUPPORT

PNASF/SUN/WD-SHG/2005: Promotion of Rural Women Self Help Group Through Dairy Development Project

The project entitled Promotion of Rural Women Self Help Group through Dairy Development Project to assist rural poor women by generating income through raising dairy cows implemented for seven years was concluded successfully.

PNASF/2005/Biological Science And Nutrition Project

Hand book and leaflets on Nutrition for School Children “Nutrition Garden in Schools Experiences and Lessons” are under preparation.

PNASF/UHSB/132/2018-19: Research Project On *Mangalore Southekeyi*

- Name of the Institute:** College of Horticulture, Sirsi. University of Horticultural sciences, Bagalkot, Karnataka.
- Project Title:** Studies on morphological & molecular diversity of South Indian landraces of *Mangalore Southekeyi* (*Cucumis melo* var. *conomon*)
- Scientists involved in carrying out the technical programme:**
Dr. Ratnakar M. Shet
Dr. Shivanand Hongal
Dr. Shantappa T.
- Technical Programme allotted for the -Half year (Jan-Jun 2018) under report:**
 - Survey, collection and documentation of unique and representative landraces/local varieties of *sambhar* southe/*Mangalore Southekeyi* from growing areas/markets of Karnataka, Kerala, Tamil Nadu, Goa, Telangana and Andhra Pradesh.

- Collection of primary data field data/information in the designed Proforma during the survey and collection of *Mangalore Southekeyi* landraces.
- Introduction of representative samples of Oriental pickling melon germplasm from China, Africa, Australia, Japan, Korea and Southeast Asia through NBPGR, New Delhi.

5. Achievements:

Survey and collection of germplasm/ landraces from Southern States

Number of germplasm accessions collected from different States			
State	District	No. of Accessions	Total of each State
Kerala	Trissur	5	
	Malappuram	2	
	Wayanad	2	
	Kozhikodi	2	
	Kasaragod	2	
	Kannur	1	
	Thiruvananthapuram	1	
		Total	15
Karnataka	Dakshina Kannada	6	
	Udupi	2	
	Uttarakannada	15	
	Shimoga	4	
	Kodagu	2	
	Chikmagalur	1	
		Total	30
Telangana	Hyderabad	2	2
Andra pradesh	West Godhavari	22	22
		Grand Total	69

(Source: UHSB)

Kerala: As per the technical program the survey, collection and documentation of unique and representative landraces/local varieties of *Mangalore Southekeyi* from Kerala was conducted during the crop season i. e., in the month of April (11-4-2018 to 15-4-2018).

Andhra Pradesh/ Telangana: From 27-4-2018 to 30-4-2018 preliminary survey in Andhra Pradesh and Telangana states was conducted.

Karnataka: During May 09-14, 2018 local survey was undertaken at Sirsi and Yallapura, Siddapur, Kumta and Honnavar taluk of Uttara Kannada, Sagar, Hosnagara, Thirthahalli, Soraba taluk of Shivamoga, Sringeri, Kadur taluk of Chickmagalore, Belthangadi, Ujire, Sulya, Mangalore taluk of Dakshina Kannada, Bramhavar taluk of Udipi, and Madikeri taluk of Kodagu district.

Tamil Nadu: The diversity of crop was less in genotype, similar to Kerala types and it was grown in limited area.

INTERNATIONAL COOPERATION

VEGINET Participates in SEAVEG Meeting at Ministry of Agriculture (MOA), Bangkok, Thailand

On March 07, 2018 Chairperson, VEGINET and Chairman, SEAVEG Coordination Committee visited Ministry of Agriculture (MOA), Bangkok, Thailand, in relation to upcoming SEAVEG-2019. In the absence of Dr. Suwit Chaikiattiyos, Director General, MOA, Bangkok, Dr. Uthai Noppakunwong, DDG, MOA, Bangkok, chaired the meeting.

Dr. Prem Nath had a useful discussion with Dr. Uthai Noppakunwong, Dr. Grisana Linwattana and other members of the team. Dr. Nath updated them on the preparations of the SEAVEG-2019 and encouraged them to participate actively as in the previous symposia.



Dr. Prem Nath and Dr. Uthai Noppakunwong



Dr. Prem Nath presented "Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human" to Dr. Uthai Noppakunwong



Dr. Prem Nath presented "Sustainable Horticultural Development and Nutrition Security" to Dr. Uthai Noppakunwong

Dr. Uthai spared his valuable time with Dr. Prem Nath, and expressed his continued interest and support to the SEAVEG activities. The suggestions and views of his, as well as of his colleagues were very much welcomed.

Dr. Prem Nath presented the newly published PNASF books, "Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human" and "Sustainable Horticultural Development and Nutrition Security" to Dr. Uthai Noppakunwong, DDG, MOA, Bangkok, who appreciated it.

The meeting ended with a vote of thanks.

Southeast Asia Vegetable Coordination Committee (SSC) Meeting

The Southeast Asia Vegetable Coordination Committee met at the MARDI Head Quarters, Kuala Lumpur, Malaysia to discuss the preparation of SEAVEG-2019 scheduled during May 06, 2018.



During SEAVEG Coordination Committee Meeting

As a Chairman of SSC and on behalf of VEGINET, Dr. Prem Nath participated in the meeting. The meeting was hosted and organized by MARDI Head Quarters, Kuala Lumpur, Malaysia and was presided over by Dr. Prem Nath with Datuk Dr. Mohamad Roff Mohd Noor, DG, MARDI and Dr. Jacqueline D' Arros Hughes, DDG, IRRI as honorable members.



Dr. Prem Nath and Datuk Dr. Mohamad Roff Mohd Noor



Dr. Prem Nath and Dr. Jacqueline D' Arros Hughes



Datuk Dr. Mohamad Roff Mohd Noor and Dr. Jacqueline D' Arros Hughes

Among others present were DG, MARDI, Dr. Pauziah Muda, Dr. AINU Husna M. S. Suhaimi, Dr. Zulazmi Sayuti, Ms. Theeba Manickam, Mr. Nur Aida Mohd Padzil,

Opening remarks

Dr. Prem Nath initiated the meeting with the hope to make SEAVEG-2019 most successful and achieve much better than previous years. Dr. Jacqueline expressed her pleasure for being a part of coordination team again this year. VEGINET along with IRRI will support MARDI in conducting SEAVEG-2019 in various aspects.

SEAVEG-2019 planning and progress

1. Datuk Dr. Mohamad Roff explained the current progress of SEAVEG-2019 in MARDI; Brochure draft and website were presented to Chairman and Dr. Jacqueline for comments and suggestions
2. Dr. Pauziah Muda detailed out the status of technical papers and selected subtopics for symposium
3. Datuk Dr. Mohamad Roff further briefed on technical tour, technology launching and MARDI/PNASF Awards during symposium

Comments and suggestion from members of meeting:

- ◆ To finalize brochure at the soonest time for 1st announcement via websites of various international agencies
- ◆ The deadlines for abstract and full paper submissions as stated in the brochure were agreed

- ◆ Suggested Sponsorships/Co-organizers are DOA Brunei, DOA Thailand, DOA Indonesia, AVA, ADB and IDB, World Fish, Penang, Cargo, May, Nestle, TESCO and NAFAS

SSC Committee Members

A. Nomination for Coordination Committee:

1. Dr. Prem Nath (Chairman) -VEGINET
2. Dr. Mohamad Roff Bin Mohd Noor (Vice Chair) -MARDI
3. Dr. Jacqueline d' Arros Hughes -IRRI
4. Dr. Suwit Chaikiattiyos – DOA, Thailand
5. Dr. Cator Hermantor – Indonesia

It was nominated and accepted.

B. SEAVEG-2019 Scientific Committee

1. Dr. Pauziah Muda (MARDI, Malaysia)
2. Dr. Fenton Beed (FAO)
3. Dr. Srinivasan (AVRDC)
4. Dr. Grisana Linwattana (DOA, Thailand)
5. Dr. C.P.A. Iyer (VEGINET, India)
6. Mr. P. B. Gaddagimath (VEGINET, India)
7. Prof. Michael Boehme (Germany)
8. Dr. Poh Bil Lig (AVA)
9. Ms. Theeba Manickam (MARDI, Malaysia)

Other Matters

1. Datuk Dr. Roff presented few printed copies of Proceedings of SEAVEG-2016 to Dr. Prem Nath and Dr. Jacqueline d' Arros Hughes,
2. The new symposium fee will be confirmed after the meeting within the national organizing committee based on the amount of sponsorship received,
3. Brochure/announcement will be updated soon,
4. Final brochure will be circulated,
5. Website will be updated according to comments received in the meeting.

SOCIAL COMMITMENT

Awards

PNASF Awards To Editors/Publishers

During the release of two books **(1) Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human**

and **(2) Sustainable Horticultural Development and Nutrition Security** on March 02, 2018 at 1800-1930 hrs at The ITC Windsor Manor, Bengaluru, the editors of the books namely, Dr. C.P.A. Iyer, Dr. O.P. Dutta, Dr. K.R.M. Swamy, Dr. B.S. Prabhakar and



Dr. C.P.A. Iyer receiving certificate



Dr. O. P. Dutta receiving certificate



Dr. K.R.M. Swamy receiving certificate



Dr. B.S. Prabhakar receiving certificate



Mr. P.B. Gaddagimath receiving certificate

Mr. P.B. Gaddagimath received certificates for their outstanding work, by the Chief Guest of the occasion, Hon. Shri T.B. Jayachandra, Minister for Law, Justice and Human Rights; Parliamentary Affairs and Legislation; and Higher Education, Government of Karnataka.



Mrs. Vanita Vinay receiving certificate

The PNASF Secretarial staff Mrs. Vanita Vinay for secretarial assistance and formatting and designing of PNASF books and for collecting and organizing the references received certificate from the Guest of Honor, Dr. D.L. Maheswar for her outstanding work during the

Ceremony of the book held on March 02, 2018 at 1800-1930 hrs at The ITC Windsor Manor, Bengaluru.

On this occasion M/s Westville Publishing House (WPH), New Delhi was awarded the PNASF certificate of appreciation for publishing the book, **Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human** by the Guest of Honor of the occasion.

M/s Scientific Publishers, Jodhpur, Rajasthan, was awarded the PNASF certificate of appreciation for printing the book, **Sustainable Horticultural Development and Nutrition Security** from the Guest of Honour of the occasion.

Gold Medal PNASF/UAS/2001

The PNASF Gold Medal 2018 was awarded to the Ph.D. candidate (Department of Plant Biotechnology) with ID No. PALB4062 student **Mr. Manojkumar H.B.** for highest grade point average at the University of Agricultural Sciences (UAS), Bengaluru. The award was presented during the University's 52nd Convocation of University of Agricultural Sciences (UAS), GKVK, Bengaluru held on February 09, 2018.

FELLOWSHIP/SCHOLARSHIP

PNASF/Dwarika Nath Memorial Gold Medal Award/1998

Shri Dwarika Nath Memorial Gold Medal Award was sponsored by Dr. Prem Nath in memory of his father late Shri Dwarika Nath in 1998. The Award managed by the Indian Society of Vegetable Science (ISVS) is devoted to the best Ph.D. Thesis in Vegetables nationwide. Accordingly, every year it is presented to the selected candidate.

PNASF/Devki Devi Ahuja Fellowship/2001 for Horticulture at the University of Horticultural Sciences (UHS), Bagalkot, Karnataka

The nomination for the scholar is awaited from the university for the current year.

PNASF/Dharmasheela Nath Scholarship/2005 at the University of Agricultural Sciences (UAS), Bengaluru

The nomination for the scholar is awaited from the university for the current year.

PNASF/Devki Devi Ahuja Fellowship/2013 at the University of Agricultural Sciences (UAS), Bengaluru

The nomination for the scholar is awaited from the university for the current year.

PNASF / UHSB / 132 / 2018-19 / Research Project on Mangalore Southekeyi

The senior scientists of PNASF and UHS had brain-storming sessions and the project document was finalized and approved. With the above background, the vision was to see improved *Mangalore Southekeyi* not only in Karnataka but throughout the nation and beyond. In order to fulfill this mission and vision, the PNASF was pleased to grant a sum of Rs. 12,50,000/- (Rupees Twelve Lakh and Fifty Five Thousand only), along with the free interaction with PNASF scientists to the UHSB for a period of 2 years.

INFORMATION DISSEMINATION

Publications of PNASF

Nath, Prem. (2017). Attaining Food and Nutrition Security in the Developing World, P.N. Agric. Sci. Foundation (PNASF), Bengaluru, and Westville Publishing House, New Delhi. pp 576.

Nath, Prem. (2018). Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant, Livestock and Human, P.N. Agric. Sci. Foundation (PNASF), Bengaluru and Westville Publishing House, New Delhi. pp. 400.

Nath, Prem, (Compiled by) 2018, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. P. 659.

Other Publications

- Bisalial, S. 2018. Sustainable Horticultural Development in India: Growth and Pathways for Sustainability, Sustainable Horticulture Development and Nutrition Security

- (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp.479-493.
- Chengappa, P.G., Mamatha, N.C., Devika, C.M. and Vijayasathy, K. 2018. Linking Horticulture Producers to Markets, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 287-297.
 - Gaddagimath, P.B. 2018. Vertical Farming to Supplement Horticultural Food Basket of Urban and Peri-Urban Population in India, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 142-164.
 - Iyer, C.P.A. 2018. Pathways to Enhancing Sustainable Fruit Production, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 167-178.
 - Mysore, Sudha. 2018. Challenges and Opportunities in Supplying Essential Farm Inputs Towards Sustainable Horticulture Development, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 275-284.
 - Mysore, Sudha. 2018. Linking Horticultural Farmers to Market for Increased Sustainability-Concepts and Cases, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 298-312.
 - Nath, Prem and Prabhakar B.S. 2018. Nutrition Awareness through School Children: Experiences and Lessons Learnt, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. P.439-458
 - Nath, Prem and Prabhakar B.S. 2018. Sustainable Development of Horticulture Under Declining Resource Base in India, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 558-587.
 - Nath, Prem, (Compiled by) 2018, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. P. 659.
 - Palaniswamy, P. Usha. 2018. Smart Horticulture towards Sustainable Horticulture Development, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 86-100.
 - Prabhakar, B.S. and Katte, Megha. 2018. School Garden- The Harbinger of Nutrition Education, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 459-475.
 - Prabhakar, B.S., Yatnatti, Shilpa and Byadigi, Savithri. 2018. Nutrition Security of a Girl Child is the Foundation to Ensure Healthy Generations, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 361-392.
 - Parvatha Reddy, P. 2018. Climate Change and Sustainable Horticulture Development, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 179-193.
 - Parvatha Reddy, P. 2018. Sustainable Intensification of Horticultural Crop Protection, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 179-193.
 - Swamy, K.R.M. 2018. Green Cities in the 21st Century, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. pp. 101-130.
 - Swamy, K.R.M. 2018. Plantation Crops—Enhancing Production and its Strategic Role in Promoting Nutritional Security, Sustainable Horticulture Development and Nutrition Security (Volume- III: Food and Nutrition Security), Dr. P.N. Agri. Sci. Foundation (PNASF), Bengaluru and Scientific Publishers India (SP), Jodhpur, Rajasthan. P.393-418.

Upcoming Book

- ◆ **Gearing-up Strategies and Accelerating Researches for Attaining Food and Nutrition Security– Prem Nath**

About the Book:

The food product or food is of great significance and importance because it is the reservoir of valuable nutrients which are available as macro-and micro nutrients in variable qualities and quantities in each food product or resource whether it is crop, livestock or fish.

During the last fifty years the world has witnessed a tremendous advancement in agricultural science and technology leading to higher food production never observed before but the hard fact faced is that about 805 million people are hungry and malnourished and more

than 3 billion people are suffering from micro- nutrient deficiency making them unhealthy to work. This demands for revising the research goals and reorganize research and management practices suitably. We need to have a serious look into the present agricultural practices and food consumption pattern and in this process we may have to dig into some traditional, cultural and ethnical habits with the aim to attain food and nutrition security.

Against this background, the elements which govern developing research strategy in food and agriculture for food and nutrition security are illustrated.

In order to attain food and nutrition security, it is essential to address each segment in the food cycle beginning from production of food, its post-harvest handling upto market, market to kitchen and kitchen to dining table and lastly its consumption for healthy life. The optima for each of these events in the cycle have been slated to be followed to attain food and nutrition security. In order to secure optimum level in each segment of the food cycle, research support becomes essential to maintain continuity of events, promote quality of food at every stage, and ensure consumption of quality and healthy food. The quality food needs to be produced, harvested food handled properly to keep up quality and safety, cooked properly to retain nutrients and consumed as balanced diet. Considering the above point, the areas of research in the food cycle has been illustrated.

The present write-up consists of **12** chapters and **26** articles. **Chapter- I** provides introduction to this publication. **Chapter- II** has attempted to illustrate the major issue of food and nutrition security and lists challenges associated with them. **Chapter-III** explains the necessity and mode of articulating research strategy illustrating the ranges of area to be covered. **Chapter- IV** deals with the research and innovations including salient features and methodology of improvement in crop plants. **Chapter-V** takes up detailed discussion on researches on nutrients in soil, and crop plants. **Chapter-VI** highlights the usefulness and researches on livestock nutrients. **Chapter-VII** enters into detailed discussion on characters and behavior of nutrients and nutrition in humans. **Chapter-VIII** describes issues and researches on post-harvest handling particularly in perishable foods. **Chapter-IX** outlines human food consumption and healthy diet. **Chapter-X** relates the significance of climate change and its affect on food resource and human. The **Chapter-XI** highlights trend and recent advances in research undertaken on food and agriculture. The **Chapter-XII** describes the changing food pattern and draws upon the benefit of extending the results to farmers and consumers. The last **Chapter-XIII** has attempted to make the readers aware of the recent views of scientists and consumers on advances made relating to efforts on food and nutrition security.

The Comments of Selected Readers on the Recent PNASF Publication

“Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant and Human”

Shri M. V. Rajashekar, former Minister of State for Planning, GOI, Bengaluru:It was so kind and generous of you to have

invited me to participate in the above programme and share my thoughts with the distinguished gathering. It is always my proud privilege to be associated with all the programmes and activities of your Foundation, in building public awareness about the importance of Horticulture and Agriculture which would provide nutrition to millions and millions of the people across the country and across the globe. Your publications being brought out from time to time by your Foundation, is like a “Diamond Mine” of knowledge in Food, Horticulture and Nutrition Management.....

Dr. C. Prasad, former DDG, Agricultural Extension, ICAR, GOI, New Delhi: Your book has come so well and so comprehensive. You shall be remembered for these excellent works forever in the history. Good wishes.....

Prof. Anupam Varma, Adjunct Professor and INSA Emeritus Scientist, IARI, New Delhi: I am highly thankful to you for kindly sending me a copy of the book, “Cycle of Nutrients, Nutrition and Nutrition Security in Earth, Plant and Human”, which is of my active interest. It has been a great pleasure for me to have been associated with the activities of PNASF. I assure you, it will be a great pleasure for me of assistance to you.

Dr. Mohamad Roff Bin Mohd Noor, DG, MARDI, Malaysia: Firstly I would like to congratulate you for success in producing the book. I also thank you for providing me the newspaper clippings. I hope this event will help to increase the visibility of our conference next year.

Dr. Panjab Singh, President, NAAS, New Delhi: The book “Cycle of nutrients.....Security” which I consider a great publication brought out by you. It is also a great pleasure to note that you have sponsored a project to UHS, Bagalkot. Your continuous devotion and dedication to science and science promotion is praiseworthy. My heartiest congratulations for the release of your book and praise for all that you are doing for promoting science.....

Dr. V. Prakash, Founder and Chairman IFRIFANS, Mysore:What I compliment you most is the meticulousness and perfection that you undertake so much to achieve and is well reflected in the book with a clear mandate of the “Cycle of Food and Nutritional Security with a word of Sustainability is so well reflected in Volume II”. I congratulate you on this and this book shall remain as a big treasure in my library.....

Prof. M. S. Swaminathan, Founder Chairman and Chief Mentor, Chennai:.....I am very happy that your book was released on 2nd March. It is a very valuable book and I am glad that several Ministers and eminent persons like Dr M V Rajasekharan attended the function. Thank you for the copy of the book. I shall go through it carefully. I wish you continued success in the very important work you are doing. You are a role model for all of us.

Prof. V.L. Chopra, Former Member, Planning Commission, GOI, New Delhi:I am a great admirer of the dedication with which the Foundation under your dynamic leadership is contributing to science and society. Please accept my sincere compliments.....

Publications of PNASF

Publications on shelves



1. *Book – Vegetable Crops: Improvement and Production (Pages : 398) 2007
2. *Book – Food Security and Vegetables- A Global Perspective (Pages:437) 2004
3. ICV-2002 Proceedings – CD (Pages:931) 2003
4. VEGINET Booklet (Pages: 22) 2003
5. ICV-2002 Abstract Book-(Pages:445)2002
6. ICH Abstract Book (Pages: 487) 2009
7. ICH Souvenir (Pages:142) 2009
8. ICH-2009-Proceeding-CD (Pages: 2553) 2010
9. Book – Foods and Nutrition (Pages: 485) 2009
10. Book-Horticulture and Livelihood Security (Pages:550) 2010
11. Book-The Basics of Human Civilization- Food, Agriculture and Humanity;
 - Volume-I: Present Scenario (Pages-676) 2013
 - Volume-II: Food (Pages-561) 2014
 - Volume-III: Agriculture (Pages-412) 2014
 - Volume-IV: Humanity (Humanity in Humans, By Humans and for Humans in Securing Food for All) (Pages-564) 2016
 - Volume-V: Expectations (Food Expectations of the People in the New Millennium) (Pages-612) 2016
12. Development Trends in Urban and Peri-urban Agriculture (Pages-230) 2015
13. Book- Food and Nutrition Security;
 - Volume-I: Attaining Food and Nutritional Security in the Developing World (2017)
 - Volume-II: Cycle of Nutrients, Nutrition and Nutrition Security In Earth, Plant, Livestock and Human (2018)
 - Volume-III: Sustainable Horticulture Development and Nutrition Security (2018)

***50% discount given to PNASF and VEGINET members, Professors, Students and Libraries.**

How To Order?

Making online order to pnasfoundation@gmail.com and by sending Bank Demand Draft or Cheque in favour of Dr. Prem Nath Agricultural Science Foundation, A/C No.: 0417101037688 in Indian rupees and A/C No: 0417101039815 in US Dollars, payable at Canara Bank, Vyalikaval, Bengaluru-560 003, India (Contact directly PNASF at E-mail: pnasfoundation@gmail.com for more details about the publication).

Plans on Hand

While the ongoing activities will continue, the PNASF proposes to undertake new programmes and activities;

1. Preparation of the book “Gearing-up Strategies and Accelerating Researches for Attaining Food and Nutrition Security”
2. Preparation of Hand Books on Nutrition for School Children.
3. Participation in Conferences/Symposium/Workshop/Congress.
 - Southeast Asia Vegetable Symposium (SEAVEG-2019) on ‘Advance Vegetable Technology for Higher Productivity and Better Human Health’ held in Hatten Hotel, Melaka, Malaysia from 8th -10th of July, 2019.
1. Awards/grants to university students and researchers to continue.
2. Collaboration with the national and international institutions/ associations in the area of food and nutrition security etc.
3. Publication of the PNASF News Letters and E-VEGINET News.

OPPORTUNITIES

Awards/Scholarships

PNASF encourages universities/institutions to institute PNASF Medal Awards for outstanding post-graduate students/young scientists working on research problems augmenting food and nutrition security and invites them to support these activities through funds provided.

Publications

The PNASF publications are available on price with the Central Secretariat, PNASF and publishers.

Contribution/Membership

Registration/membership/contribution either to PNASF or to VEGINET available at

Website: www.pnasf.org

and by E-mail to

pnasfoundation@gmail.com

SEAVEG-2019 FIRST ANNOUNCEMENT

SEAVEG-2019-Advancing Vegetable Technology for Higher Productivity and Better Human Health

9 – 11 July 2019, Hatten Hotel, Melaka, Malaysia



BACKGROUND

The advancements in vegetable production technologies play an important role towards sustaining and securing our vegetable sources. With the theme 'Advancing Vegetable Technology for Higher Productivity and Better Human Health', this upcoming 2019 Southeast Asia Vegetable Symposium (SEAVEG 2019) will highlight new promising technologies and approaches to produce high quality vegetables. Advanced vegetable technologies such as sensor devices, machinery, precision agriculture and smart farming are currently being adopted to enhance vegetable production. These technologies strengthened the efforts taken by the breeders and horticulture scientists to improve crop yield and quality. Modern agricultural biotechnology which involves applications of cellular and molecular techniques helps to identify macro and micronutrient availability in vegetables. These nutrients are essential for human health and contribute to a better quality of life. The symposium will consist of plenary, keynote and parallel oral presentations. Much attention will also be given to the poster sessions, where the organisers are anticipating active involvement of both poster presenters and other participants. Specific topics will be addressed via a panel discussion which encourages active audience participation to further understand the current scenario and future priorities of the vegetable industry.

OBJECTIVES

1. To serve as a platform for representatives from agricultural and environmental agencies, research institutions, universities, policy makers, farmers, consumers, value chain actors and producers to discuss and share their views and exchange ideas, innovations and products, information and latest progress in vegetable technologies.
2. To provide participants with an avenue to make recommendations based on the current needs of the vegetable industry.

CALL FOR PAPERS

In conjunction with SEAVEG 2019 theme, papers of relevant topics are invited for oral and poster presentations. Abstracts of 200 to 250 words will need to include names of authors, their institutions, country and contact email addresses.

All abstracts will be reviewed by the Scientific Committee and authors will be notified if they have been assigned to an oral or poster presentation session. The format for abstract and full papers can be obtained from the SEAVEG 2019 website. The deadline for abstract submission is on **31 March 2019** and full paper submission is on **31 May 2019**. Posters should be in portrait size of 18 inch x 28 inch and for further information go through the website-<http://seaveg.mardi.gov.my>

VENUE	REGISTRATION
Hatten Hotel, Melaka, Malaysia Tel: +606 282 9696; Fax: +606 281 9696 http://www.hattenhotel.com/	Please register online at our website: http://seaveg.mardi.gov.my

REGISTRATION FEE		PAYMENT
Local Participant	RM 1000	Account name : Dana Persidangan MARDI Bank account No : 8002159290 Bank name : CIMB Bank Bank address : Serdang Perdana, Tingkat Bawah & Mezzanine, No. 33 Jalan SP2/1, Taman Serdang Perdana, 43300 Seri Kembangan, Selangor, Malaysia Swift code : CIBBMYKL
International Participant	USD 350	
Student	RM 750	

ENQUIRIES AND CORRESPONDENCE		
General enquiries including pre-registration and payment, please contact: Secretariat Tel: +603-8953 6913/6803, Fax: +603-8953 6789 Email: seaveg2019@mardi.gov.my	Enquiries relating to papers, posters and programme, please contact: Ms. Theeba Manickam Tel: +603-98945 7450/ +6012-3397200 Email: theeba@mardi.gov.my	Enquiries regarding participation in advertisement and exhibition, please contact: Dr. Zaulia Othman Tel: +6018-352 6337/ +603-8953 6975 / +603-89536993 Email: zaulia@mardi.gov.my / suryanti@mardi.gov.my

<p>Organizers</p>  <p>www.mardi.gov.my</p>  <p>http://www.pnasf.org/veginet.html</p>	<p>Co-organizer</p>  <p>http://irri.org/</p>	<p>Supported by</p>  <p>http://www.treasury.gov.my/?lang=en</p>
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All enquiries to:

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Website: www.pnasf.org

