Chairman, PNASF Speaks



Dr. Prem Nath

Relevance: 'Hunger' and 'thirst' are common features in human's daily life. There is a count of hungry people but it is difficult to count thirsty people. A short-term hunger and thirst could be managed but the long-term hunger and thirst of millions is a challenge to the nation and world. It is reported that 805 million people in the world are hungry.

Significance: It is recognised that nobody on earth can remain alive without food and equally it is true of the water. Eating food is incomplete without water, because of its definite biological processes. Food and water are bonded permanently, socially, physically, bio-chemically and nutritionally. Consumers tend to drink water whole

of the day and sometimes during night which is more than food intake in terms of number. But we have heard more emphasis on food and less on drinking water, maybe, because we think it is easily and cheaply available. Under the present circumstances, it is not true, the drinking water is not easily available and where available it not safe to drink.

Benefits: The benefits of drinking safe water are enormous; as stated by medical experts it helps digestion, promotes nutrition, normalises blood pressure, stabilises heartbeat, cushions joints, protects organs and tissues and regulates body temperature. Practically, food and water go together beginning food- and water - intake to its final utilization in building up the growth and development of the human body. Hence, there is the significance, importance and essentiality of water in food and its consumption.

Water Crisis is here, and it can wipe us out: The World Bank in 2005, predicted that within 20 years, 60% of all aquifers in India would be in a critical condition. Just 14 years later, the grim prognostication has already come true. According to the Niti Aayog's 2018 Composite Water Management Index (CWMI), 21 major cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater level by 2020, affecting the access to water of more than 100 million people. The CWMI report notes that the country's water demand is likely to be twice the available supply by 2030. Besides implying severe water scarcity for hundreds of millions of people and an eventual 6% loss in GDP, the report points out how excessive groundwater pumping and our failure to preserve natural aquifers and catchments, an inefficient and wasteful water management system and years of deficient rains have wreaked havoc on our water ecosystem.

Want tap water fit to drink? Pass a law: Nine years ago, on July 28, 2010, the United Nations General Assembly explicitly recognised water and sanitation as 'essential human right' in its Resolution 64/292. Yet just 50 countries provide drinkable tap water, as per a travel advisory by the United States' Center for Disease Control and Prevention (CDC), a government health agency. The UN has estimated that 2.1 billion people didn't have access to safe drinking water in 2017.

70% apartments in B'luru don't get Cauvery water: The burgeoning number of apartments in Bengaluru has thrown up a huge challenge for the state government — meeting water needs of the residents. Documents accessed by TOI show only 22,000 apartments, each with 20 flats or more, in the city get Cauvery water from Bangalore Water Supply and Sewerage Board (BWSSB).

Message: Nutrition security cannot be attained without security of drinking water.

Prem Nath

Chairman, PNASF

FVFNTS

Southeast Asia Vegetable Symposium 2019 (SEAVEG-2019) 9th to 11th July, 2019, Melaka, Malaysia







Chief Guest address during Inaugural Session



Felicitation to Dr. Prem Nath





Dignitaries and Audience during Inaugural Session



Dignitaries visiting Exhibition

Under the aegis of the Southeast Vegetable (SEAVEG), The 4th Southeast Asia Vegetable Symposium (SEAVEG-2019) was organized by the Malaysian Agricultural Research and Development Institute (MARDI), Malaysia and Vegetable Science International Network (VEGINET), Bengaluru and supported by Department of Agriculture (DOA), Thailand, Peneinsular Malaysia; Farmers Organisation Authority (LPP), Malaysia; Centre for Agriculture and Bioscience International (CABI); The Asia-Pacific Association of Agricultural Research Institutes (APAARI); and International Rice Research Institute (IRRI), Philippines, during 9-11 July, 2019 at Hatten Hotel, Melaka, Malaysia. The theme of the regional Symposium was "Advancing Vegetable Technology for Higher Productivity and Better Human Health". About 250 participants from about 20 countries participated.

• Inaugural Session - Chief Guest on the occasion was Honorable Chief Minister of the State of Melaka, Malaysia, Mr.Tuan Haji Adly Zahari and Guests of Honor were Honorable Dato' Mohd Sallehuddin Hassan, Secretary General, Ministry of Agriculture and Agro-based Industries, Datuk Dr. Mohamad Roff Bin Mohd. Noor, Director General, MARDI; and Dr. Prem Nath, Chairperson, VEGINET and Chairman, SEAVEG Coordination Committee.

The audience was addressed by all the dignitaries at the dais. The Chief Guest highlighted the challenges of the food production including vegetables and appreciated the efforts of the organizers in organizing the SEAVEG-2019 Regional Symposium in Melaka.

Book – Release:



Launching of Books

During the inaugural session the following new publications were released by the Chief Guest and the dignitaries.

- Gearing-up Strategies and Accelerating Researches for Attaining Food and Nutrition Security by Dr. Prem Nath.
- 2. Vegetable for Nutrition Security by Dr. Prem Nath.
- Manual Teknologi Penanaman Kubis Bulet di Tanah Rendah by MARDI.

• International Awards

- PNASF International Award: Dr. Mohamad Roff Bin Mohd. Noor, Director General, MARDI received the P.N. Agricultural Science Foundation International Award for his outstanding contribution to national and international agriculture and food.
- ii). VEGINET International Award: Prof. K.V. Peter, former Vice-Chancellor and well–known Vegetable Scientist received the Vegetable Science International Network Award for his meritorious contribution to vegetable research and development. In the absence of Prof. K.V. Peter, the award was received by Dr. O.P. Dutta.



PNASF International Award to Dr. Mohamad Roff Bin Mohd. Noor



PNASF International Award Citation to Dr. Mohamad Roff Bin Mohd. Noor



VEGINET International Award to Prof. K.V. Peter (in absence) by Dr. O.P. Dutta

Press Meet



Press Meet

Soon after the inaugural session, the dignitaries went round the Exhibition Hall and participated in the Press Meet organised. During the press conference, apart exhibition organized, the three books released, received the maximum attention of large number press reports present.

APAARI organised a special session on Agricultural Value Chain which was introduced by Dr. Ravi Khetarpal and chaired by Dr. Marco Wopereis, Director General, World Vegetable Centre.

• Plenary and Keynote Presentations

A total of 4 plenary papers and 9 key note papers on different aspects of vegetables by the lead speakers were delivered during the Symposium. The plenary papers were presented by i) Plenary 1. Dr. Prem Nath (VEGINET), ii) Plenary 2, Dr. Cecila Acuin (IRRI), iii) Plenary 3, Dr. Marco Woperies (WorldVeg), iv) Plenary 4, Dr. Paul P.S. Teng (NIE).

Plenary Speakers



Dr. Prem Nath



Dr. Cecilia Acuin



Dr. Marco Wopereis



Dr. Pant T.S. Teng

Some Keynote Speakers



Dr. Anupam Varma



Prof. Michael Boehme



Prof. P.G. Chengappa



Dr. Stefaan De Neve



Dr. Sivapragasam Annamalai



Dr. O.P. Dutta

Oral and Poster Papers

The Oral Papers presented by the participants during different technical session were 30, whereas, the poster papers presented were 96.

Some Oral Paper Presentations





Dr. R.C. Jagadeesha







Dr. Ratnakar Shet



Best Oral Paper Award



Oral Paper Certification



The Best Oral Paper Award was presented to Dr. Raghavendra Gunnaiah



Poster Presentations

Panel Discussion



Plenary Members at the dais



Audience during Panel Discussion

The presentations were made by the panel members Dr. P.G. Chengappa, Dr. Prem Nath, Prof. Stefaan De Neve, Dr. Pant T.S. Teng and Dr. Marco Wopereis. With the participation of audience, the brainstorming session ended with conclusive remarks.

SEAVEG Award Presentations

- VEGINET Awards for best oral and poster papers were presented by Dr. Prem Nath at Dr. Mohamad Roff Bin Mohd. Noor
 - a) Dr. Srinivasan Ramasamy (best oral paper), and
 - b) Mrs. Dayang Safinah Binti Nayan (best poster paper)





- PNASF Awards for outstanding contribution to preparing and managing the Symposium;
 - a) Ms. Theeba Manickam (Deputy Director, MARDI, Malaysia)
 - b) Dr. Rozlaily Bt. Zainol (Deputy Director, MARDI, Malaysia)
 - Dr. Norhafizah Binti Mohamad Yusof (Deputy Director, MARDI, Malaysia)





SEAVEG and PNASF Awardees presented by Dr. Prem Nath and Dr. Mohamad Roff Bin Mohd. Noor

- Plenary and Keynote Papers presented by VEGINET and PNASF members were
 - a) Dr. Prem Nath Vegetables: Cycle of Nutrients, Nutrition and Nutrition Security.
 - b) Dr. P.G. Chengappa Improving the Competitiveness of Vegetable Markets through Value Chain Development.

- c) Dr. O.P. Dutta Micro greens and Sprouts for Household Nutrition Security and
- d) Dr. Anupam Varma Integrated Management of viral diseases to Improve Productivity and Quality of Vegetable Crops.
- PNASF and UHSB Project: PNASF/UHSB/132/2018-19-Mangalore Southekayi (Cucumis melo var. conomon): Dr. Raghavendra Gunnaiah received the best oral paper award for the research paper entitled, "DNA fingerprinting and molecular diversity analysis of South Indian Landraces of Mangalore Southekayi (Cucumis melo var. conomon)."
- Concluding Remarks



Closing remark by Datuk Dr. Mohamad Roff Bin Mohd. Noor



Audience during Closing Session

In his closing remark, Datuk Dr. Mohamad Roff Bin Mohd. Noor, thanked all participants for their valuable contribution to the symposium and collaborating institutions for their strong support making the event most successful.

- The Proceedings of the SEAVEG 2019 will be published by MARDI supported technically by VEGINET.
- 2. The next SEAVEG Symposium expected probably in 2021 should possibly be organised in Indonesia or Vietnam or Philippines depending on the offers received.

The SEAVEG-2019 ended with the vote of thanks by MARDI, VEGINET and SEAVEG.

Meeting of the Project: PNASF/UHSB/132/2018-19-Mangalore Southekayi (*Cucumis melo* var. conomon)

A joint meeting of UHSB and PNASF on the Half-Yearly report of the Project entitled, "Studies on morphological and molecular diversity of South Indian landraces of Mangalore Melon (Mangalore Southekayi)" was held at the College of Horticulture, Bangalore Campus of the University of Horticultural Sciences, Bagalkot.

The PNASF members present were Dr. Prem Nath, Dr. O.P. Dutta, Dr. K.R.M. Swamy, Dr. P. Parvatha Reddy, and Mr. P.B. Gaddagimath and members from UHSB, Bagalkot were Dr. R.C. Jagadeesha, Dr. Ratnakar M. Shet, and Dr. Raghavendra Gunnaiah.

- The members expressed their satisfaction on the progress of the project (Jan 2018 to Jan 2019) and appreciated the efforts of UHS scientists in introducing *Mangalore Southekayi* to the international research community at the Southeast Asia Vegetable Symposium held at Melaka, Malaysia from July 9-11, 2019.
- The Evaluation of Mangalore Southekayi genotypes for virus resistance and fusarium wilt resistance need to be completed.
- Development of intercross hybrids between Mangalore Southekayi and muskmelon was emphasized.
- The planned research activities for the next period July-Dec 2019 were
 - (a) Evaluation of inter-specific hybrids,
 - (b) Association mapping for selected traits,
 - (c) Nutritional profiling of selected genotypes,
 - (d) Custody maintenance/distribution of germplasm collected,
- As an outcome of the project the following research papers were presented to the SEAVEG – 2019 (Southeast Asia Vegetable – 2019) held in Melaka, Malaysia during July 9 – 11, 2019.
 - Ratnakar M Shet, Shivanand Hongal, Shantappa,T., Veeresh, S.M., Sujatha, P.,Raghavendra Gunnaiah and Jagadeesha, R.C. 2019. Collection and Evaluation of Culinary Cucumber (*Cucumis melo* var. *conomon*) Germplasm Accessions in India.
 - Raghavendra Gunnaiah, Ratnakar M Shet, Jagadesha, R.C., Ashwini G. and Radhika Hedge. 2019. DNA Finger Printing and Molecular Diversity Analysis of South Indian Landraces of Mangalore Southekayi (*Cucumis melo* var. conomon).Dr. Raghavendra Gunnaiah received the "Best Oral Presentation Award".

Shri M.V. Rajasekharan Endowment National Level Lecture



On invitation by the organizing committee of the Shri M.V. Rajasekharan Endowment National Level Lecture, Dr. Prem Nath attended the function on September 12, 2019 held at Karnataka Gandhi Smaraka Nidhi, Bengaluru. It was organised on the occasion of Shri Rajasekharan ji's 92nd birthday.

The highlight of the event was the learned lecture entitled, "Vellore Institute of

Technology, Vellore" delivered by Dr. G. Viswanathan. It was attended by hundreds of people from all walks of life who valued his teachings and appreciated his contribution to humanity.

Shri Rajasekharan ji thanked all invitees present and management committee acknowledged contributions of individuals and organizations who made to make the event successful.

Journey to Peru, Columbia and Morocco

During my visit to Peru and Columbia in Latin America and Morocco in Africa in September – October 2019, I had an opportunity to see different ancient culture, climate, people, plants and food. It was an unique opportunity to visit Amazon forest and rivers and to the ancient monuments of Matchu Pitchu above 11,000 ft in Peru. The green water of Pacific Coast in Peru and Columbia and blue water of Atlantic Coast in Morocco were quite inviting. The specific plants and foods will be mentioned as observed.

1. Common Crops observed:

In Peru, common fruits grown and consumed were fig, mango, passion fruit, peach, strawberry, papaya, pineapple, red and green apple, avocado, persimmon, dragon fruit, grape, banana, orange, avocado, kiwi, watermelon, muskmelon, physalis peruviana, pears, small berries, local language Aguaymanto (Physalis Peruviana), Cacao (Cocoa), Chirimoya, Maracuya or Granadilla (Passionfruit), Pitahaya (Dragon fruit), Saúco (Elderberry), Tuna (Cactus Pear), Avocado (Palta), Pacay (Green Bean), Mamey Sapote (Sapota), Aguaje (Moriche Palm Fruit), Tumbo (Banana passion fruit), Pepino Dulce (Pepino melon) Guayaba (Guava), Tumbo (Banana Passion Fruit), Capulin (Peruvian Cherry), Cocona (Amazon Tomato) and Eggfruit (Lúcuma) as shown in below figures.







Fruits of Peru



Fruits of Peru



Pepino Melon (Solanum muricatum) in Peru

In Morocco, pomegranate, cactus fruit, orange were sold on streets of Casablanca.



Fruits and Vegetable Market in Morocco



Peach (Prunus persica L.)



Date (Phoenix dactylifera L.)



Cactus Pear (Opuntia littoralis var. vaseyi)



Elderberry (Sambucus nigra. L.)



Avocado (Persea americana Mill.)

Orange (Citrus X sinensis)

In Columbia, common fruits available were banana, sapota, Cherimoya, orange, pineapple, black corn, small corn and others.



Columbia Fruit Market



Plantain (Musa × paradisiaca)

2. Conclusions / observations:

a) Genetic variability:

Papaya demonstrated great variability in shape, color and size but all sweet.

Cherimoya fruit weighed as much as about 4 kg which is quite unlike India which is below a kilo. Mango had less variability but quite juicy and sweet. Orange quality could be improved *Carambola /* Star Fruit was quite common; banana and plantain showed variability.





Cherimoya (Annona cherimola Mill)





Kiwi Fruit (Actinidia deliciosa var deliciosa)

Cape Gooseberry (*Physalis Peruviana* L.)

Sapota was quite sweet with red flesh and the shape was close to conical or oblong and bigger in size than common Indian varieties.







Sapota (Manilkara zapota L.)

Dragon fruit had yellow skin color with white flesh unlike in India where the skin colour is green or red purple imported from Southeast Asian countries. It was reported that the crop was grown since time immemorial.



Pitahaya or Dragon Fruits (Hylocereus undatus)

The ancient corn types, small to large and creamy to blue, black were still available in the markets.





Pineapple, black corn, local fruit

Black Corn (Zea mays var. indurate)



Corns of Peru

b) Dehydrated fruits and vegetables

As shown in the figures almost all fruits and vegetables were home – dehydrated.



c) Consumption of Juices

It was amazing to see the number of fruit juice stalls and large number of consumers in the central market of cartages. The cocktail of fruit juice as well as fruit mixed with vegetables was quite popular. Sample tasting demonstrated that cocktail juices had large variation and were much tastier than single fruit juice.

It seemed mixture of different fruit juices added different nutrients. Even the bottlegourd juice was mixed with fruit juice.









Juice stalls in Cartagena, Columbia

d) Sample Farm in Amazon forest in Peru

The sample farm of above 1.5 acre was illustrative of the activities undertaken mostly on horticultural crops and small livestock. The crops grown were coco, *Carambola*, pineapple, banana and plantain, mango, passion fruit, *noni*, yuca roots and others, whereas, small livestocks raised were chicken and pig.











Sample Farm in Amazon forest in Peru

Message Derived:

 i) Introduction of fruits, preparing juice and cultivating drinking habit:

Common juice available were from passion fruit, *noni*, orange and many others. It was reported to be growing there since long time and considered as household juices. *Physalis* fruit is grown and consumed as fruit and juice most commonly.

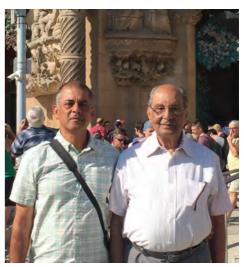
ii) Introduction to India.

It will be interesting to introduce the new fruit crops to India. In some fruit crops genetic variation in these countries could be utilized. Some cocktail of fruit juices and its consumption habits could be introduced to Asia towards improving human health and nutrition security.

a) Passion fruit and *Physalis* could be popularized among farmers with increased production and consumption could be encouraged, (b) genetic size and quality of Indian *Cherimoya* could

be enhanced, (c) Latin fruits could be introduced for enhancing nutrition availabilities.

Acknowledgement is due to my son Dr. Bijoyendra Nath who spared time to plan, organise and accompanied me to the trip and kindly took the photos presented here.



Dr. Bijoyendra Nath and Dr. Prem Nath during trip

United Nations Day - 24th October 2019

On 24th October, 2019, the AFUNPI (Association of Farmer United Nations Personnel in and of India) celebrated the 74th United Nations Day at the Century Club, Bangalore. It was attended by about 40 members. On this occasion the President of AFUNPI, Dr. Marashetty Seenappa read the message of the UN Secretary General, Mr. Antonio Guterres, United Nations, New York as follows:

United Nations Day highlights the enduring ideals of the Charter, which entered into force on this date 74 years ago. Amid stormy global seas, the Charter remains our shared moral anchor.

At this time of turbo-charged change, the United Nations remains focused on the real problems of real people. We are working for a fair globalization and bold climate action .We are pushing for human rights and gender equality – and saying "no" to hatred of any kind.

And we are striving to maintain peace- while bringing life-saving aid to millions caught up in armed conflict.

The United Nations itself is becoming ever more agile and accountable as we enhance support to countries. Next year marks the Organization's seventy-fifth anniversary. This milestone is a critical moment to shape our future, together.

I invite you to join the conversation. Together, let us advance the well- being of "we the peoples".

Later, the members deliberated on the functions and contributions of UN and the need for change under the present and future environment.

On this occasion, Dr. Prem Nath presented to each member two new publications / handbooks in popular language on food and nutrition security prepared and published by the PNASF, Bangalore for use by all consumers particularly housewives, school children and consumers.

- 1. Towards Safe Fruits And Vegetables From Farm To Fork and
- 2. Know The Vegetables You Grow And Eat-Tomato Family.

 The function was hosted by Dr. Prem Nath and Mrs. Shri Laxmi and Dr. Jayarao Gururaja, Dr. M. Seenappa thanked the members and Mrs. Magdalene Chand thanked hosts.

Participation in Krishi Mela functions at GKVK, Bangalore (24th to 27th October, 2019)

On invitation, Dr. Prem Nath participated in Farmer's Award function of the Krishi Mela at GKVK Campus of University of Agriculture Sciences, Bangalore held on October 25, 2019. On this occasion of a number of farmers who demonstrated professionalism were honored and awarded by dignitaries on the dais. The men and women farmers were awarded for their outstanding performance in the field. The farmers in thousands attended the function and farmers in lacs attended the exhibition stalls and field demonstration.

On this occasion, Honorable Shri D.V. Sadananda Gowda, Union Minister of Government of India, highlighted the major challenges facing the food and agriculture and alerted farmers development officers and teaching and research scientists to undertake steps to overcome them. Mr. K. Siddaramaiah, former Chief Minister of Karnataka State flagged the burning issue of non-performance of the nation as per present Global Hunger Index. He referred to millions of people suffering from food insecurity. Mr. S. R. Vishwanath, MLA highlighted the practical difficulties faced by local farmers and consumers. Dr. Prem Nath mentioned about his long association of 50 years with the GKVK and flagged the growth and development of the University, farmers and agriculture science and food production of the state In spite of the growth and development, the food and nutrition insecurity prevailed which needs to be addressed fully and timely. He thanked the management of the University for creating this opportunity / event

for bringing farmers, professors, consumers and leaders together to discuss the common issue of food and agriculture.

On behalf of PNASF, Dr. Nath informed that the institution has assisted efforts to attain food and nutrition security by awarding scholarship / fellowship to about 30 MSc. and PhD. students of GKVK researching on nutrition security.



Dignitaries and farmer awardees

Technical Advisory Council Meeting



Handbook and Booklet were presented to TAC Members

During the Technical Advisory Council, the PNASF Handbook and Booklet were released on December 14, 2019. The members present were Dr.K.R.M.Swamy, Dr.B.S.Prabhakar, Dr. Prem Nath, Dr. P. Parvatha Reddy and Mr. P.B. Gaddagimath.

Release of the PNASF Booklet: Towards Safe Fruits and Vegetables from Farm to Fork

On November 01, 2019 during the Kannada Rajyotsava Day the Booklet No.1. entitled "Towards Safe Fruits and Vegetables from Farm to Fork", authored by Dr. C.P.A. Iyer and published by PNASF was released by the President Esteem Classic Apartments



Dr. C.P.A. Iyer Addressing the gathering



Release of the PNASF Booklet

Association, Mr. Murthy Vidula in the presence of dignitaries on the dais and all residents in the premises of the Esteem Classic Apartments, Rajajinagar, Bangalore. Dr. Iyer introduced Dr. Prem Nath, Chairman, PNASF and briefed about the booklet authored by him and released on this occasion. The management of the resident association thanked both Dr. Prem Nath and Dr. C.P.A. Iyer for their contribution. Dr. Nath thanked the office bearers of the association for permission to release the booklet in the interest of the residents. Each family will receive a complimentary copy of the booklet.





Gathering during Release of the PNASF Booklet

Visit to Government Model Primary School, Gedalahalli

A PNASF Team consisting of Dr. Prem Nath, Dr. KR.M. Swamy and Ms. Pushpa visited Government Model Primary School, Gedalahalli on December 06, 2019. The school hosted the PNASF Project: PNASF/MHPS/2005 – Biological Science and Nutrition Project during the year 2006. Going back to the school was like coming back home. Dr. Swamy and Dr. Nath reminded of the project

implemented by them with students participation. The team had interaction with the Headmistress Ms. Malathi, teachers and students.



Dr. Prem Nath distributing Handbook among the students



Dr. K. R. M. Swamy distributing Handbook among the students



Students of class VI, VII and VIII received the Handbook entitled, "Know the Vegetables you Grow and Eat- Tomato Family".

The newly published popular series Handbook "Know the Vegetables you Grow and Eat- Tomato Family" and Booklet "Towards Safe Fruits and Vegetables from Farm to Fork" were presented to the Headmistress and staff members, whereas students each of class VI, VII and VIII received the Handbook entitled, "Know the Vegetables you Grow and Eat- Tomato Family". On behalf of PNASF, Dr. Nath offered the school to ask for any advice on nutrition garden needed by them and assured the school for continued technical support.

RESEARCH AND DEVELOPMENT SUPPORT

PNASF/2005/Biological Science and Nutrition Project

For the benefits of the school children the following Publications in the popular series were published and released.

 Booklet on "Know the Vegetables You Grow and Eat -Tomato Family" and 2. Handbook on "Towards Safe Fruits and Vegetables-From Farm to Fork"

PNASF/UHSB/132/2018-19: Research Project on Mangalore Southekayi

The work done is reported under 'Events'.

INTERNATIONAL COOPERATION

SEAVEG-2019, Melaka, Malaysia is reported under 'Events'.

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), Varanasi, Uttar Pradesh is devoted to the best Ph.D. Thesis in Vegetables nationwide. Accordingly, every year it is presented to a selected candidate.

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

This fellowship for post-graduate students in Horticulture was awarded to Ms. Jeevitha S., ID No. UHS14PGD100, Ph.D. student, University of Horticultural Sciences, Bagalkot, Karnataka for the academic year 2019-20.

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

On the recommendation of the University of Agricultural Sciences

(UAS), Bengaluru, Karnataka, Ms. Veena, V. Kambalimatha, Jr.M.Sc (Agri.) in Food Science and Nutrition, UAS, Bangalore is nominated for the **PNASF/Dharmsheela Nath Scholarship/2005** for the academic year 2019-20.

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

The nomination from the UAS is awaited.

PNASF/UHSB/132/Mangalore Southekayi at the Sirsi Campus of the University of Horticulture Sciences, Bagalkot, Karnataka

On the recommendation of the University of Horticultural Sciences (UHS), Bagalkot, Karnataka, Mr. Veeresh P. M. and Ms. Sujata L. Padadalli were continuing as **Research Fellows** for the **Research Project-PNASF/UHSB/132/ Mangalore Southekayi,** College of Horticulture, Sirsi Campus of the University of Horticulture Sciences, Bagalkot, Karnataka for the academic year 2019-20.

INFORMATION DISSEMINATION

PUBLICATIONS OF PNASF

New Publications

A. Books

- Nath, Prem, 2019. Gearing-up Strategies and Accelerating Researches for Attaining Food and Nutrition Security, PNASF and Westville Publishing House, New Delhi, Pages: 348
- 2. Nath, Prem, 2019. Vegetable for Nutrition Security, PNASF and Brillion Publishing, New Delhi, Pages: 682
- Nath, Prem, 2019. Involving Consumers in Emerging Role of Achieving Food and Nutrition Security, PNASF and Westville Publishing House, New Delhi, Pages: 460

B. Booklet/Handbook

- 1. Swamy, K. R. M. 2019. Know the Vegetables You Grow and Eat Tomato Family, Pages: 44
- 2. lyer, C.P.A. 2019. Towards Safe Fruits and Vegetables-From Farm to Fork, Pages: 24

Upcoming Book

1. Human Drinking Water and Nutrition Security by Dr. Prem Nath

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

INFORMATION DISSEMINATION



- 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 (Pages-540) 2017
- Volume-II: Cycle of Nutrients, Nutrition and Nutrition Security In Earth, Plant, Livestock and Human (Pages – 368) 2018
- Volume-III: Sustainable Horticulture Development and Nutrition Security (Pages – 625) 2018
- Volume-IV: Gearing-up Strategies and Accelerating Researches for Attaining Food and Nutrition Security (Pages – 348) 2019
- Vegetable for Nutrition Security (Pages 682) 2019
- * 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;

- Preparation of the book "Human Drinking Water And Nutrition Security"
- 1. Preparation of Hand Books/ Booklets for School Children and housewives.
- 2. Participation in Conferences/Symposium/Workshop/Congress. Southeast Asia Vegetable Symposium (SEAVEG-2021)
- 3. Awards/grants to university students and researchers to continue.
- 4. Collaboration with the national and international institutions/ associations in the area of food and nutrition security etc.
- 5. 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.

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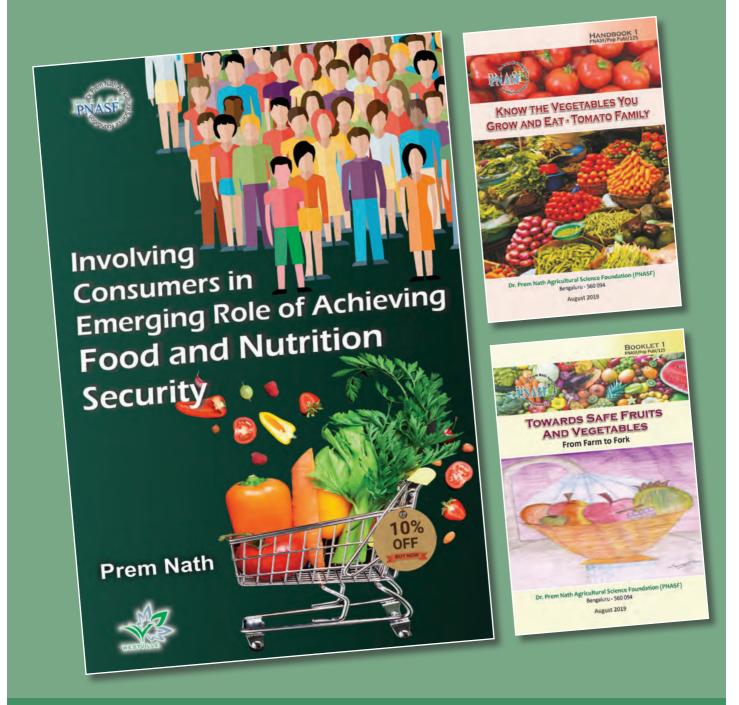
Contribution/Membership

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

Website: www.pnasf.in and by E-mail to pnasfoundation@gmail.com (Please note above the updated website)

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