July-December 2007

Chairman, PNASF Speaks



Vol - II

Availability and application of modern agricultural technology remain the key issues in profitable and sound farming system keeping the balance between adequate input and higher output and in maximizing the net returns. In this context, conservation and appropriate utilization of natural resources balanced with availability and application of inputs play important role in increased agricultural production. In order to ensure higher production, availability of both the technology and inputs

need to be secured and neither of them alone could achieve the higher target of production (Nath, 2006).

India is challenged by declining per capita availability of arable land, low productivity levels, heavy production losses due to biotic and abiotic stress, heavy losses during storage and transportation and declining availability of water as an agricultural input. Among other factors, the way out of this dilemma is the availability and application of improved technology.

The world has witnessed first crop revolution in 1960's in the form of introduction of dwarf genes in rice and wheat and second crop revolution in the form of introduction of hybrid varieties in 1980's and 90's. A third is in the offing which can appropriately be called the "genetic engineering revolution".

Biotechnology investigates into the improvement of varieties of plants. Rapidly accumulating information about crop genomes is allowing scientists to identify genes associated with traits such as yield, and then to scan 'crop relatives' for the presence of those genes.

Now nanotechnology has the potential to revolutionize the agricultural and food industry with new tools for the molecular treatment of diseases, rapid disease detection, enhancing the ability of plants to absorb nutrients etc. Smart sensors and smart delivery systems will help the agricultural industry combat viruses and other crop pathogens.

At this time, I would like to invite the attention of worthy scientists, policy makers, entrepreneurs, farmers and consumers whose aim is to produce more, to make available quality food, and to consume balanced food for healthy life. It looks like the planners and scientists are placing more emphasis on higher production. Should we not first save what we have already produced, as for example, about 30-40 percent losses of fruit and vegetables could be reversed by improved packing, storage, processing and transport. Improved storage facilities could save millions of tons of grains from damage. This would save significant time, money, land and water and at the same time will provide additional food by 30-40 percent.

The new and old technologies have been of tremendous assistance in sustaining the livelihood of the human beings. Our ancient fore-fathers collected seeds, scientists collected crops and bred them into improved varieties and the new scientific tools improved productivity with improved quality and efficiency in time and resources. It is envisaged that the application of new emerging technologies should demonstrate multifold increase in the quality production in order to match with the upcoming increased population in 2025.

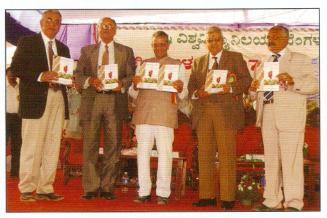


EVENTS

Issue - VIII

Union Minister Releases the Book "Vegetable Crops – Improvement and Production"

Shri M.V. Rajasekharan, Honourable Union Minister of State for Planning, Government of India released the book entitled 'Vegetable Crops – Improvement and Production' authored by Dr. Prem Nath, Dr. V.K. Srivastava, Dr. O.P. Dutta and Dr. K.R.M. Swamy published by the Prem Nath Agriculture Science Foundation, Bangalore on 18th November, 2007 at the Gandhi Krishi Vigyan Kendra (GKVK), University of Agricultural Sciences, Bangalore during the award's presenting ceremony of Krishi Mela – 2007 organized by the university.



Shri M. V. Rajasekharan, Chief Guest, releasing the book along with Shri M.R. Srinivas Murthy, Dr. Prem Nath, Sri A Ramaswamy and Dr. P.G. Chengappa (L to R)

Addressing the gathering after release of the book, Shri M.V. Rajasekharan, Chief Guest of the function, appreciated the contributions made by Dr. Prem Nath and the foundation in the field of agricultural research and development and also in the field of food and nutritional security and health care.



Dr. Prem Nath addressing the gathering during release of the book

The present book "Vegetable Crops – Improvement and Production" published by the foundation is yet another contribution in the field of a gricultural education and extension added the minister. He further said that this book

EVENTS

will be of immense use to students, teachers, and extension workers and farmers. Speaking from the dais Dr. Prem Nath, Chairman, PNASF, Bangalore thanked the honourable minister for releasing the book and also thanked Dr. P.G. Chengappa, Vice-Chancellor, and all the other authorities of UAS, Bangalore for their kind gesture of release of this book during the Krishi Mela celebrations.



Dr. Prem Nath presenting a set of books to Dr. P.G. Chengappa, Vice Chancellor, UAS, Bangalore

Dr. Prem Nath also presented a set of the books to Dr. P.G. Chengappa for the UAS Library and selected students. Shri M.R. Sreenivas Murthy, Principal Secretary, Finance, Government of Karnataka and Shri A. Ramaswamy, Principal Secretary, Agriculture and Horticulture, Government of Karnataka, who were present on the dais also addressed the gathering.

On behalf of Prem Nath Agriculture Science Foundation, Dr. Prem Nath felicitated Shri M.V. Rajasekharan, Dr. P.G. Chengappa, Shri M.R. Sreenivas Murthy and Shri A. Ramaswamy. On behalf of the staff members of the university, Dr. P.G. Chengappa, Vice-Chancellor, UAS, Bangalore also felicitated Dr. Prem Nath on the occasion.





Dr. Prem Nath, felicitating Shri M.V. Rajasekharan and Dr. P.G. Chengappa

More than 1000 people comprising of farmers, teachers, students and media persons were present on this occasion. In the beginning Dr. P.G. Chengappa, delivered the welcome speech and the function was concluded with the vote of thanks from Dr. G. Eswarappa, Director of Extension, UAS, Bangalore.

The Prem Nath Agricultural Science Foundation, Bangalore places on record with appreciation, the co-operation extended by University of Agricultural Sciences, Bangalore in providing the former an opportunity on the platform to serve the common cause of students and farmers. Further, the PNASF is also pleased to publish the address by Dr. Prem Nath during the occasion in the following paragraphs.

Address by Dr. Prem Nath

Honourable Shri M.V. Rajasekharan, Shri A. Ramaswamy, Shri M.R. Sreenivas Murthy, Prof. P.G. Chengappa, Board of Regents of the UAS, distinguished guests, professors and students, fellow farmers, ladies and gentlemen.

I consider it a great privilege and honor to speak before you this afternoon on the occasion of the mega Krishi Mela organized by the University of Agricultural Sciences, Bangalore.

Since its inception the Dr. Prem Nath Agricultural Science Foundation (PNASF) with its mission of promotion of agricultural education, research and sustainable development with the focus on food and nutrition security, has been closely associated with the University of Agricultural Sciences, Bangalore. The collaborative activities undertaken are:

- a. the ongoing annual gold medal award to the Ph.D student with highest grade point average in agriculture,
- b. three research scholarships to post-graduate students in the Department of Agricultural Economics,
- c. ongoing Ph.D fellowship in floriculture, and
- d. this year a new Ph.D fellowship in the Department of Home Science and Food.

The University of Agricultural Sciences had actively participated in the International Conference on Vegetables (ICV) organized by the P.N. Agricultural Science Foundation in November, 2002 in Bangalore where about 700 delegates from about 40 countries participated. The UAS was invited to present the lead paper during the FAO International Workshop on Urban and Peri-Urban Agriculture for Asian countries organized by the P.N. Agricultural Science Foundation during June-July, 2005.

In the recent years, vegetables have been considered as the major supplement to food and nutrition security and health care. The FAO and WHO have already announced that adequate intake of fruit and vegetables controls non-communicable diseases like some cancer, diabetes, blood pressure, obesity etc and improves over all health.

Within three decades, there has been a sea change in vegetable sector in India as also in the rest of the world. The vegetable varieties have been improved both in quality and quantity, production technology revised and refined, marketing pattern changed to value addition, transport and storage improved, processing and packaging refined and finally consumers choice prompted by nutrition and health consciousness. In this changed scenario it is incumbent on us that the students and farmers are equipped with the latest information.

On the recommendations of the renowned and life-long vegetable scientists in India, the Dr. Prem Nath Agricultural Science Foundation (PNASF), Bangalore, has been pleased to publish this book and acknowledges gratefully the dedication and outstanding contribution of the authors namely, Dr. Prem Nath, Dr. V. K. Srivastava, Dr. O. P. Dutta and Dr. K. R. M. Swamy with their rich experience and contribution to the vegetable science nationally and internationally. The authors have attempted to provide latest scientific and technical information on vegetable crops available in India for the benefit of undergraduate and post-graduate students, extension workers,

technicians, vegetable growers, amateur gardeners and quality and nutrition conscious consumers.

The Foreword messages have been written by His Excellency Shri. T. N. Chaturvedi, Former Governor of Karnataka; Shri. M. V. Rajasekharan, Hon. Union Minister of State for Planning, New Delhi; and also by the nationally recognized vegetable scientists Dr. Kirti Singh, Dr. Vishnu Swarup, Dr. K.V. Peter and renowned agricultural scientists, Dr. M.N. Sheelavantar and Dr. H. A. B. Parpia.

The Book comprises of ten chapters in 416 pages with 914 references and 91 tables. The PNASF has published this book in the low-priced series to make it accessible to all students and farmers. On this occasion the book is available for Rs. 99/- only on further subsidized rate.

Now I have the pleasure of requesting Honorable Shri M. V. Rajasekharan ji to kindly release the book.

The P. N. Agricultural Science Foundation further has the honour to request Prof. P. G. Chengappa, Vice Chancellor to kindly receive 12 complimentary copies of the book for the UAS library and the needy students.

On behalf of the Dr. Prem Nath Agricultural Science Foundation, and on my own behalf, I thank profoundly the Vice-Chancellor Dr. P.G. Chengappa and the staff members of the University of Agricultural Sciences for providing this opportunity to release this publication in the presence of the agriculturists, professors and students and the consumers. The PNASF is very thankful to the press and media for its wide coverage.

Honourable guests, ladies and gentlemen, I thank you very much for your patient hearing.

Jai Hind jai Karnataka jai Kissan.

Honourable Union Minister of State for Planning, Shri. M.V. Rajasekharan visits PNASF

Shri M.V. Rajasekharan, Honourable Union Minister of State for Planning visited the office of PNASF, Bangalore on 5th June, 2007 between 4.30 PM to 5.30 PM. Dr. Prem Nath, the Chairman along with TAC members, senior scientists and staff of PNASF, Bangalore extended a warm welcome to the minister.

Dr. Prem Nath briefed the Honourable Minister with the recent activities of the PNASF particularly in the area of food and nutrition security and women development. The Guest who was already aware of the project activities on nutrition security for the school children, was pleased to note the efforts of PNASF to expand the project activities to other schools and more children. Further, he was appraised of the launching of the new project entitled - PNASF/SUN/WD-SHG/2005: Promotion of Rural Women Self Help Group through Dairy Development at I.D. Halli, Madhugiri taluk, Tumkur district. He showed his keen interest in visiting the project site and in meeting the beneficiaries. The PNASF News which had the latest information on this project was presented to him.

The Honourable Minister appreciated the efforts of the PNASF in working with the rural and urban poor communities particularly in augmenting food and nutrition security and in encouraging rural poor women in improving socio-economic status. On the submission of the PNASF to obtain more resources to strengthen and expand

these projects and activities for more beneficiaries, the Honorable Minister was pleased to extend his support and asked for an informative note for his further action.



Dr. Prem Nath presenting a set of publications to Honourable Minister

The Chairman, PNASF presented the Guest with the relevant publications and fresh mangoes of the garden. The expressions of Honourable Minister in the visitor's book is reproduced below;

I am indeed very happy to meet Dr. Prem Nath and his staff and scientists who are working to provide nutrition security especially to our children. I am always overjoyed to see the dedication and commitment of Dr. Prem Nath to achieve the objectives for which he is committed. I wish him all the best.

> Sd M.V. Rajasekharan

Annual Conference of the American Society of Horticultural Science 2007

The Annual Conference of the American Society of Horticultural Science (ASHS) was held during July 16 -29, 2007 at Scottsdale, Arizona, USA.

Dr. Usha Palaniswamy represented PNASF, Bangalore and also presented a paper in poster session. The abstract of the paper is given below;

Title

USDA/CSREES International Science and Education (ISE) Competitive Grants program-2006 funding to establish strong network for vegetable improvement Vegetable Science International Network (VEGINET)-USA Chapter.

Abstract

A major achievement of the Prem Nath Agricultural Science Foundation (PNASF Bangalore, India) is formation of Vegetable Science International Network (VEGINET) to facilitate interaction of agricultural professionals at all levels in the interest of production, consumption and food security. Its goal is to strengthen partnership and interinstitutional cooperation among member organizations of the vegetable sector towards improved production/utilization of vegetables. Importance of fruits and vegetables in the human diet

has gained prominence as evidenced by the formation of interdisciplinary centers to enhance the value of fruits and vegetables to improve human health. The Vegetable Improvement Centers (VIC) are engaged in multidisciplinary research, teaching, and outreach activities related to foods for human health. Vegetables and fruits used throughout the world number in several hundreds, many of which are not widely used in the developed world. Connecting with farmers and agricultural scientists in the developing countries through this network will facilitate identification of newer vegetables and salad crop species suitable for cultivation and consumer acceptance in the mainstream as well as new ethnic markets in the US; identification of crop cultivation practices by networking with local farmers in native home countries; and sharing of new technologies and scientific advances between researchers and scientists from the developed countries and the developing countries. Such networking as proposed by the Global Horticultural Initiative and the VEGINET is lacking for scientists working in the US. VEGINET will help to closely connect world vegetable producers and researchers in the developing and developed countries in achieving world food and nutrition security.

USDA/CSREES International Science and Education (ISE) Competitive Grants Program-2006 Funding to Establish Strong Network for Vegetable Improvement Vegetable Science International Network (VEGINET)-USA Chapter warry, Chair, Division of Natural Sciences & Ma

provement Centers (MC) are engaged in multidisciplinary research, teaching, and outreoch activities related to for provides and furtils used throughout the world number in several hundreds, many of which are not widely used in precising with farmers and agricultural scientists in the developing countries through this network will facilitate de getables and saled crop species suitable for cultivation and consumer acceptance in the mainstream as well as in § identification of orop cultivation practices by networking with local farmers in native home countries, and sharing sientific advances between researchers and scientists from the developed countries and the developing countries, proposed by the Global Horticultural infiative and the VEGINET is lacking for scientists working in the US. VEGINET under the producers and researchers in the developing and developed countries in achieving world lood and

The Management System

Dr. W. O. Baudoin - Me Dr. M. L. Anothai Choomsai -(Thailand) Dr. O. A. Denton - (Nigeria)

Dr. H. A. B. Parpia - (India) Dr. R. K. N. Singh - (Canada)

ail address in the

The *VEGINET-USA chapter approved

March 2, 2007. Supported by USDA/CSREES International

Science and Education (ISE) Competitive Grants

how to use its benefits please provide your name

attached sheet or drop your business card in

Program-2006 Grant # 2006-51160-03392 USA chapter offers free life-time membership to 50

scientists engaged in vegetable improvemen To receive more information about VEGINET and

Objectives

nong the member organizations acilitate building of a sound and sustainable infrastructure for insport of perishable produce

Activities

- nent and use of value added germplasm

- rotection technology in the field & at post har larvest management of fresh produce & proce

*For more details please contact usha.palaniswamy@hotmail.com

Dr. Prem Nath Delivers Keynote Address at Biospectrum 2007

On the invitation of the organizers, Dr. Prem Nath, Chairman, PNASF, Bangalore delivered the Keynote address "Improving Indian Agriculture Using New Generation Sciences" during the inaugural session of the International Symposium 'Biospectrum 2007' on

'Advances in Food Biotechnology and Nutrition' organized by the School of Biosciences, Mar Athanasios College for Advanced Studies, Tiruvalla (MACFAST), Kerala on November 30, 2007.



Dr. Prem Nath along with the dignitories on the dias

More than 500 delegates including 125 scientists from India and abroad, faculty members and post graduate students participated in this international symposium. Dr. Prem Nath also released a souvenir published on the occasion during the inaugural session. In the beginning Rev. Dr. Abraham Mulamoottil, Principal, MACFAST, delivered the welcome speech. Dr. C. Balagopalan, Director



Dr. Prem Nath releasing the souvenir

of Research & Resident Dean gave an introduction to the international symposium and Dr. H.G. Dr. Thomas Mar Koorilos, Archbishop of Tiruvalla delivered the Benedictory speech. The inaugural session was concluded with vote of thanks by Dr.

P.K. Abraham, Director, MACFAST. The abstract of the Keynote paper as published in the souvenir of the symposium is reproduced below.

Key Note Address

"World produces enough to feed the population of human beings on earth but it is not uniformly distributed. About 815 million people globally suffer from hunger and malnutrition, mostly in the developing world and nearly one third of the world's hungry people (233 million) are reported to be homed in India. Getting away from the recent past, agriculture increasingly has emerged as a leading economic sector, but its benefits are not broadly based. In the developing world, where the number of small farmers significantly exceeds the large farmers, majority of the small to medium farmers are poorly prepared to either gain the broader benefits of the changes in agriculture or respond to previously known competitors. The problem is not that most small farms are inherently unviable in today's market but they face an increasingly unlevel playing field with the large farms of the developed countries.

Availability and application of modern agricultural technology remain the key issues in the profitable and sound farming system keeping the balance between adequate input and higher output and in maximizing net returns. In this context, conservation and appropriate utilization of natural resources balanced with availability and application of inputs play important role in increased agricultural production. In order to ensure higher production, availability of both

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USDA/CSREES International Science and Education (ISE) Competitive Grants Program-2006 Funding to Establish Strong Network for Vegetable Improvement Vegetable Science International Network (VEGINET)-USA Chapter Usha R. Palaniswamy, Chair, Division of Natural Sciences & Mathematics, Excelsior College Albany, NY 12203 Prem Nath, Chairm an, PNASF, Bangalore, India Abstract ent of the Prem Nath Agricultu ork (VEGINET) to facilitate into

International Network (VEGINET) to facilitate interaction of agricultural provisions are considered in the vegetable sector food security. Its goal is to strengthen partnership and international cooperation among member organizations of the vegetables sector towards improved production/distration of vegetables, importance of fruits and vegetables in the human diet has gained prominence as serienced by the formation of interdecisplancy contents to enhance the value of fruits and vegetables to improve human health. The Vegetables and fruits used throughout the world number in several hundreds, many of which are not widely used in the developed world. Connecting with farmers and agricultural scientists in the developing countries through this network will facilitate indication of never vegetables and said crop species suitable for cultivation and consumer acceptance in the mainstream as well as rise within transiers in it. US; identification of crop cultivation practices by networking with local farmers in native home countries, and sharing of new technologies scientific advances between researchers and scientifics from the developed countries and the developing countries. Such developing countries also the second countries are considered and the developing countries. Such the developing as scientific advances between researchers and scientifics from the developed countries in the total and multiple society. ld vegetable producers and researchers in the developing and developed countries in achieving world food and nutrition security.

Goal: VEGINET will strengthen partnership & inter-institutional

Objectives

engthen/promote vegetable research and development mote partnership between public and private sector for

Promise parties are better in pure and private sector for improving vegetable production Facilitiste development of human resource by education and Promote improved & sustainable vegetable production for for provide security & economic empowerment of the farming

communary
Develop collaborative network for dissemination of information
among the member organizations
-facilitate building of a sound and sustainable infrastructure for
transport of perishable produce

Activities

- Production technology and productivity

 Peroduction technology and productivity

 Development and use of value added gemelasm

 Hybrid seed development and productivity

 Genetic improvement

- utilized vegetables & by-prod ing and trade infrastructure



The Management System Nominating Committee

Dr. Prem Nath - Convene Dr. W. O. Baudoin – Member (FAO)/International Advisor Dr. M. L. Anothai Choomsai (Thailand) Dr. O. A. Denton – (Nigeria) Dr. H. A. B. Parpia – (India) Dr. R. K. N. Singh – (Canada) Dr. Usha Palaniswamy- (USA)

The *VEGINET-USA chapter approved March 2, 2007.

Supported by USDA/CSREES International Science and Education (ISE) Competitive Grants Program-2006 Grant # 2006-51160-03392 USA chapter offers free life-time membership to 50 scientists engaged in vegetable improvement To receive more information about VEGINET and to use its benefits please provide your name contact phone, mail and email address in the attached sheet or drop your business card in the envelope.

*For more details please contact usha.palaniswamy@hotmail.com

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Availability and application of modern agricultural technology remain the key issues in the profitable and sound farming system keeping the balance between adequate input and higher output and in maximizing net returns. In this context, conservation and appropriate utilization of natural resources balanced with availability and application of inputs play important role in increased agricultural production. In order to ensure higher production, availability of both

EVENTS / RESEARCH AND DEVELOPMENT SUPPORT

the technology and inputs need to be secured and neither of them alone could achieve the higher target of production. This demands:

- A new approach to agriculture that breaks out of a pattern of farming that leaves too many in hunger;
- New policies from governments that learn from farmers, new thinking, new structures, new institutions;
- A new synthesis of farming practices for millions of small scale farmers that recover and combine traditional ways with recent and innovative technologies.

In this context progress in molecular biology, genetic engineering, and biotechnology can greatly and most effectively supplement conventional breeding approaches in enhancing yield, productivity, income, sustainability and equity. Biotechnology interventions are already being used (and have additional potential) to enhance yield levels, increase input-use efficiency, reduce risks (and reduce effects of biotic and abiotic stresses), and enhance nutritional quality

Now in a significant twist, new, cutting-edge technologies have made gene splicing and transgenic crops obsolete and serious impediment to scientific progress. The new frontier called genomics, and the new agricultural technology called marker-assisted selection (MAS) is gaining importance.

The modern science has made further strides in serving the human kind, in the form of nanotechnology which has the potential to revolutionize agricultural and food industry with new tools for molecular treatment of diseases, rapid disease detection, enhancing ability of plants to absorb nutrients etc. The impact of nanotechnology in the food industry has become more apparent over the last few years. The types of application include: smart packaging, on demand preservatives, and interactive foods. In addition to packaging, nanotechnology is already making an impact on the development of functional or interactive foods, which respond to the body's requirements and can deliver nutrients more efficiently.

In this era of scientific advancement, the new tools offer great promise in overcoming hunger and poverty by enhancing quality and quantity agriculture and food production and by reversing at least 30 to 40 per cent food losses in fruit and vegetables alone. This could be achieved with adequate support of governance in terms of education, research, management, regulation and trade".

PNASF Honoured with Rashtriya Shiksha Ratna Award

The PNASF, Bangalore was awarded "RASHTRIYA SHIKSHA RATNA AWARD" for its outstanding contribution on food and nutrition security for the benefit of poor urban and rural communities, on August 29, 2007, during the National Level Seminar on "National Economic Growth through Individual Contribution" organized by the National Education and Human Resource Development Organization at Ravi Natya Mandir, Mumbai 400 025. The award was received by Dr. Prem Nath, Chairman, on behalf of the PNASF.

The occasion was graced by the dignitaries on the dais from India and abroad and was attended by about 1,000 delegates from different states of India.

The Board of Trustees of PNASF is appreciative of this national award by this organization in encouraging individuals and

organizations towards augmenting national economic growth in different sectors including education, health, agriculture, industry, trade, corporations and sciences.



Dr. Prem Nath receiving the Rashtriya Shiksha Ratna Award

RESEARCH AND DEVELOPMENT SUPPORT

PNASF/SUN/WD-SHG/2005: Promotion of Rural Women Self Help Group through Dairy Development Project- Visit to Project Site

Dr. Sundari Velu from California and the major donor to 'PNASF/ SUN/WD-SHG/2005: Promotion of Rural Women Self Help Group through Dairy Development Project' visited the project site at ID Halli, Madhuqiri Taluk, Tumkur District on 25th October, 2007.





Dr. Prem Nath and Dr. Velu being welcomed at the project site

She was accompanied by Dr. Prem Nath, Dr. K.R.M. Swamy, Dr. M Sudha, Ms. Latha S.V. from the PNASF and on the project site by the members of the Project Management Committee (PMC) led by Mr. Chandrashekara, Veterinary Doctor, Dr. Nagabhushan, Mr. Jayapalan and others from M/s Namdhari Fresh Pvt/ Ltd., ID Halli.

The visiting officials had detailed discussion with the PMC members and the ten women beneficiaries of the project at the farm of Namdhari Fresh Pvt. Ltd. Mr. Chandrashekara and Dr. Nagabhushan briefed the visitors on the methodology, implementation and progress made within seven months of its implementation.

The visiting team had interactive session with the ten beneficiaries. Each beneficiary completed the form on Scheme: Socio-Economic Assessment of Dairy Feed Programme prepared by an Agriculture Economist and reported on the progress including milk production and health, bottlenecks experienced in implementation, and training undergone. The effect of fresh feed as an innovative input was highlighted.

RESEARCH AND DEVELOPMENT SUPPORT



The visiting team interacting with the beneficiaries



PMC members interacting with the beneficiaries

The concluding session ended with the positive note that the project was useful to the rural women communities. No major issue of concern was raised by the beneficiaries and on the contrary, they asked for more number of cattle and the project to be extended to more beneficiaries. The PNASF responded that the project will be considered for expansion based on the positive experience gained.

The visitors had an opportunity to visit the site of three beneficiaries and observed the actual development of the cattle where some calves had demonstrated tremendous growth and both mother cow and calf were growing healthy.



Dr. Sundari Velu and Ms. Latha S.V. at the project site of a selected beneficiary

Dr. Velu and the visiting team expressed satisfaction on the implementation of the project and appreciated the efforts of the implementing team and the beneficiaries.



Beneficiaries of the project with the visiting team and PMC members

PNASF/MHPS/2005-Biological Science and Nutrition Project

The activities continued under the project-Biological Science and Nutrition for the School Children during the period, July-November 2007 as the third cropping season of the project. The terrace of the school building was used to grow plants in pots. The students observed changes in the growth of different vegetables, pests and diseases attacking the plants and interacted with the scientists imparting the training programme.



Brinjal crop grown on the terrace of the school by the children

The students harvested the vegetable from each plant/pot, examined them for quality and weight and the experts explained them regarding its nutritive values. The date obtained will be analyzed for its conclusion.



The children with a harvest of French bean crop grown under the project along with Ms. Latha S.V. of PNASF

RESEARCH AND DEVELOPMENT SUPPORT



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RESEARCH AND DEVELOPMENT SUPPORT

The PNASF is committed to improve the nutrition security especially of the undernourished urban children communities. It is a novel concept to catch the young school children to create awreness about vegetable nutrition and human nutrition, who will become ambassadors of the dissemination of this knowledge of nutrition in their later years.

Canara Bank Supports PNASF Biological Science and Nutrition Project

The PNASF's project "PNASF/MHPS/2005 – Biological Science and Nutrition" which aims at brining awareness on nutrition and better health by educating the school children about the role of fruits and vegetables in nutrition and health improvement and further learn the skills of growing fruits and vegetables and understand the science of crop husbandry particularly the horticultural crops to their advantage and the community at large at Government Model Higher Primary School, Geddalahalli, Bangalore received support of a grant of Rs. 50,000/- (Rupees Fifty thousand) only from the Canara Bank. The Board of Trustees of the PNASF is highly appreciative of this contribution towards the education and nutrition security of the school children by the Bank.



Dr. Prem Nath receiving a cheque from Canara Bank authorities; Chief Manager Sri S. Ganapathy and Sr. Manager Sri B. Vrushabendrappa

Project Appraisal

- On June 29, 2007, the Chairman, Dr. Prem Nath visited the TAC member, Dr. Sundari Velu in Los Angeles, California, USA and held discussions with her. She was presented with a copy of the new PNASF News Vol. II, Issue VII and a copy of the project entitled PNASF / Nutrition Security Project / 2007 to be discussed among the individual / women club who would be interested in supporting this project for the benefit of the poor school children. Dr. Velu appreciated the progress made by the PNASF particularly on the project: PNASF / SUN / WD SHG / 2005 Promotion of Rural Women Self Help Group through Dairy Development with a major contribution by her. Further, she assured to take the opportunity to discuss the nutrition project of the school children among the members of the women club. She agreed to participate in the upcoming TAC meeting during next October, 2007.
- The Chairman, Dr. Prem Nath held a meeting with Professor Emeritus Charles V. Hall of the lowa State University, Ames, USA on July 14, 2007. Professor Hall has been a great supporter of the PNASF activitites and showed keen interest in the new project on the nutrition for the school children. On the request that the proposed project entitled "Augmenting Nutrition and Health of



Dr. Prem Nath with Prof. C.V. Hall

School Children" be named after him, the retired professor humbly agreed to this proposal and agreed to make a modest contribution. On the draft project document he commented that (a) the outstanding student participants

should be awarded and (b) they should be educated and allowed to practice on conservation of seeds. He asked for 5 copies of the book entitled "Food Security and Vegetables – A Global Perspective" for distribution among university libraries. A copy of the latest PNASF News was presented to him and he asked for some more copies to be distributed among the interested people.

On July 19, 2007, Dr. Prem Nath held a discussion with Dr. K. G. Ahuja, the TAC member at Wheeling, Chicago, USA. Dr. Ahuja is a strong supporter of PNASF and its activities. He was presented with the recent issue of the PNASF News.

Dr. Ahuja is also the main contributor of the Smt. Devaki Devi Ahuja Fellowship by the PNASF. Dr. Ahuja who had participated in the ICV – 2002, and had received PNASF Silver Medal for his o u t s t a n d i n g contribution in horticulture. He was



Dr. Prem Nath with Dr. K.G. Ahuja.

encouraged by the nutrition security project for the school and volunteered to author a booklet on 'Food and Its Nutritive Values' for the benefit of the school students, teachers and the parents. It was agreed that the write – up will be reviewed by the technical committee of the nutrition project and will be utilized by the beneficiaries of the project as well as other interested on nutrition.

 On July 27, 2007 the Chairman, PNASF, had a detailed discussion with Dr. Bijoyendra Nath, the member Trustee of the PNASF, in Minneapolis. He was presented with a copy of the latest PNASF news. While discussing the activities of the PNASF, he appreciated the efforts made by the Technical Advisory Council and personally asked to convey his compliments to the august members of the Council, for their valuable contribution in volunteering their expertise and experience for the needy communities through the PNASF. He was impressed by the projects on Women development and on Nutrition security of the school children and wished to visit the projects during his next visit. Further, Dr. Nath was pleased to grant a sum of US Dollars two thousand only for the benefit of the nutrition project and its beneficiaries which is gratefully acknowledged by the PNASF. He complimented the efforts of the PNASF secretariat particularly Ms. Latha S. V for her excellent performance.

RESEARCH AND DEVELOPMENT SUPPORT / INTERNATIONAL CO-OPERATION



Dr. Prem Nath receiving a cheque of \$ 2000/-for the school nutrition project from Dr. Bijoyendra Nath

The PNASF acknowledges gratefully the contribution of USD 2000 by Dr. Bijoyendra Nath, Minneapolis, U.S.A. in augmenting nutrition security of the children.

The Chairman, PNASF had a detailed discussion on the activities of the PNASF with Dr. R. K. N. Singh, TAC member, in Toronto, Canada. Dr. Singh had received PNASF Silver Medal Award for his outstanding contribution to horticulture and nutrition during the ICV – 2002 held at Bangalore. He appreciated the progress made by the PNASF and encouraged PNASF to contact Canada Fund for Local Initiatives in India (New Delhi) for obtaining funds of its project activities. He took keen interest in the nutrition project and provided number of extension leaflets issued for household by the Canadian Ministry of Health.

Dr. Singh further discussed the activities of the VEGINET and agreed to participate in the ICV - 2008 scheduled at Fortaleza, Brazil during April 14 - 18, 2008.

INTERNATIONAL CO-OPERATION

Dr. Prem Nath, Chairman, PNASF along with Dr. R. K. N. Singh visited the Department of Plant Agriculture, University of Guelph, Guelph, Canada on August 02, 2007. A detailed discussion was held with Dr. David J. Wolyn, Associate Professor researching on vegetable crops and Dr. Mary Ruth Mc Donald, associate Professor researching on floriculture. They were presented with a copy of the latest PNASF news as well as a copy of the Book "Food Security and Vegetables – A Global Perspective"



Dr. Prem Nath with Dr. Wolyn and Dr. MCDonald.

Both Dr. Wolyn and Dr. McDonald showed interest in the activities of the PNASF and the VEGINET. Dr. McDonald was also involved in

project promoting vegetable production in some village communities in Ghana and showed interest in the nutrition project for the school children.

Both the professors showed interest in participating in the ICV – 2008 in Brazil. The University of Guelph offers Bachelor degree in Organic Agriculture.

Visit to FAO Regional Office for Asia and the Pacific, Bangkok, Thailand

Dr. Prem Nath, Chairman, PNASF visited the FAO Regional office, RAP in Bangkok on August 15, 2007 and held discussions with Dr. He Chengchui, Asstt. Director General and Regional Representative; Mr. N. . Hla, Chief , Management Unit; Mr. Ronald Van Nijnauteu, Coordinator, Field Programmer; Dr. Revathi Balakrishnan, Senior Women Development Officer; Mr. P. Mudbhary, Chief , Policy Unit; and Mr. B. Nandi, Senior Food and Nutrition Officer.

Dr. Nath briefed the officials on the activities and progress made by the PNASF. Dr. He welcomed the proposal that the FAO / RAP will under take steps to collaborate with PNASF (a) in both regular and field programmes, where feasible, (b) feasible participation in ICV - 2008, (c) TCDC with the PNASF.

All other officials agreed to exchange information and to identify linkage with the PNASF on the projects and activities on mutual interest. RAP offered publications for the PNASF library.

Visit of the Nuffield Scholars from Australia and France

The PNASF, Bangalore had been identified to co-ordinate and conduct the study visit of the Nuffield Scholarship recipients in India by Nuffield Farming Scholarships Trust, Leicestershire, UK.

Mr. Jack Milbank, an Australian horticulture grower and Mr. Romain Vacherot, a French grower visited India and PNASF, Bangalore from November 13-26, 2007 They were the recipient of Nuffield Scholarship for agriculture/horticulture study tour in India, UAE and Taiwan.



Mr. Jack Milbank from Australia and Mr. Romain Vacherot from France along with Dr. Prem Nath at PNASF office during the visit

On their request, the PNASF organized their tour to Himachal Pradesh, Maharashtra and Karnataka to study particularly the production, processing and marketing of both temperate and tropical horticultural crops. The visiting sites included grower's field including

crop and seed production, agricultural universities, experiment stations and marketing centers. Both the visiting foreign growers and the national growers benefited out of the sharing of knowledge on horticulture industry. On completion of their tour they conceived and expressed the potential of cooperation among these growers. It was also highlighted that these scholars would work on possible continued collaboration between PNASF and Nuffield Australia in order to initiate Nuffield India.

In making successful the study tour of these visitors, , the cooperation and support of Dr. Y.S. Parmer University of Horticulture and Forestry in Solan, Seminis Vegetable Seeds (India), Ltd., in Aurangabad , National Horticulture Research and Development Foundation (NHRDF) in Nasik, SAFAL market, Bangalore, HOPCOM, Bangalore, Namdhari Seeds and Namdhari Fresh Pvt., Ltd., Bidadi, Bangalore and the Department of Horticulture, Govt. of Karnataka and horticulturists and growers in Karnataka, is very well appreciated and acknowledged.

Second International Conference on Vegetables (ICV-2008)

On the recommendation of the Organizing Committee of the ICV-2008 based in Fortaleza, Brazil supported by the international member institutions, it has been agreed to **postpone** the scheduled date of the Second International Conference on Vegetables from 14 – 18 April, 2008 to a later date before the end of the year. The details will be made available in due time in the Second Announcement to be published. Inconvenience caused to all interested in the conference is deeply regretted.

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INFORMATION DISSEMINATION

SEMINARS

- A key note address was delivered by Dr. Prem Nath in the BIOSPECTRUM 2007 – International Symposium on Advances in Food Biotechnology and Nutrition organized by School of Biosciences, Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Tiruvalla, Kerala on November 30, 2007.
- Dr. Prem Nath delivered the speech on the new book 'Vegetable Crops: Improvement and Production' during the Book Release Ceremony in the Krishi Mela – 2007 organized by University of Agricultural Sciences (UAS), Bangalore on November 18, 2007 at Bangalore.
- Dr. Usha Palaniswamy, focal member of the VEGINET –USA Chapter presented a paper in poster session during the Annual Conference of the American Society of Horticultural Science 2007 held during July 16-19, 2007 at Scottsdale, Arizona, USA.

PUBLICATIONS

Publications on shelves

| Description | India (In Rs.) | Foreign(In US \$) |
|---|---|---|
| ** Book – Vegetable Crops : Improvement and Production (Pages :) 2007 | 125.00 + Rs. 55.00 (extra postage charge) – PB type | 20.00 including postage |
| * Book – Food Security and Vegetables- A Global Perspective (Pages:437)2004 | 400.00 +postage extra - PB type 500.00+postage extra – HB type | 50.00 including postage for both PB and HB type |
| * ICV-2002 Proceedings – CD (Pages:931) 2003 | 250.00 including inland postage | 10.00 including foreign postage |
| * VEGINET Booklet (Pages: 22) 2003 | 35.00 including postage | 5.00 |
| * ICV-2002 Abstract Book- (Pages:445)2002 | 600.00 including inland postage | 35.00 including foreign postage |
| * ICV -2002 Souvenir (Pages:124) 2002 | 575.00 including inland postage | 25.00 including foreign postage |

^{* 35%} discount to PNASF and VEGINET members, professors, students and libraries.

How to order?

Making online order to pnasf@vsnl.net and sending Bank Demand Draft or Cheque in favour of Dr. Prem Nath Agricultural Science Foundation, A/C No.: 37688, payable at Canara Bank, Vyalikaval, Bangalore – 560 003, India.

^{* * 15%} discount to PNASF and VEGINET members and to libraries.

INFORMATION DISSEMINATION

PLANS ON HAND

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

- Participation in conferences
 - Assist in the preparation of the Second International Conference on Vegetables (ICV-2008) scheduled August -November in Fortaleza, Brazil;
 - Host the VEGINET Secretariat;
 - Participate in upcoming national and international conferences :
- Participation of PNASF in IV Balkan Symposium on Vegetables and Potatoes at Sadovo (Bulgaria) scheduled on September 09 – 12, 2008.
- Awards/grants to university students and researchers to continue;
- Collaborate with the national and international institutions/ associations in the area of food and nutrition security etc.

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.

Field Projects

PNASF invites societies/associations/NGOs interested in implementing small rural community projects on self help income generation augmenting food security, for any assistance.

Publications

The PNASF publications are available on price with the Central Secretariat, PNASF. Both perfect bound and hardbound copies of the latest publication 'Food Security and Vegetables – A Global Perspective' are available on sale. Order also be placed through the website www.pnasf.org

Contribution/Membership

Registration/membership/contribution either to PNASF or to VEGINET or to both may be obtained by completing the attached form and by paying the requisite fee.



Website: The detailed activities of the PNASF are accessible on www.pnasf.org

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