



Central Institute of Post Harvest Engineering & Technology Ludhiana

Our Slogan: Produce, Process and Prosper

CIPHET E - Newsletter for June-August, 2012
Vol. 7 No. 6-8

Director's Column



Dear All

A Memorandum of Agreement was signed between CIPHET and National Horticultural Board (NHB), Ministry of Agriculture, Govt. of India to work on the design of insulated and ventilated freight containers for trucks and trains. The agreement is a part of the initiative of NHB and Container Corporation of India, for a special train with ventilated containers for long distance transport of fresh fruits and vegetables.

To formulate strategies for future research and study the progress of existing projects at the institute, Research Advisory Committee meeting of CIPHET was organized.

To explore collaborative areas and explore possibilities in post harvest sector, a eleven member high level delegation from Nigeria visited CIPHET.

I heartily congratulate Dr. S. N. Jha for getting the prestigious "Rafi Ahmed Kidwai" Award of ICAR for his pioneer work in nondestructive methods of quality evaluation of foods and post-harvest technology of *makhana* in India.

Two-days training programs on soybean and chilli processing were organized. Farmers from different states attended the training programs.

On behalf of CIPHET family, I welcome Sh. Neeraj Tahliani, Finance and Accounts Officer and Sh. S.S. Verma, Private Secretary on their joining at CIPHET.

With best regards

U. S. Shivhare
Director

In this Issue

CIPHET signs MoU with National Horticulture Board

RAC meeting conducted

Scientist got Rafi Ahmed Kidwai Award

CIPHET organized soybean processing training

CIPHET conducted training on green chilli processing

Agro processing training conducted at CIPHET

Nigerian delegates visited CIPHET to explore collaborative areas

Summer School organized

QRT of AICRP on PHT held

Scientist joins CIPHET after advanced training on BOYSCAST Fellowship

Training / conference attended

New Joining

CIPHET signs MoU with National Horticulture Board

Dr U. S. Shivhare, Director, CIPHET and Mr Bijay Singh, Managing Director, National Horticultural Board (NHB), Ministry of Agriculture, Govt. of India, signed a Memorandum of Agreement on 23 August, 2012 for work on the design of insulated and ventilated freight containers for trucks and trains. The agreement is a part of the initiative of NHB and Container Corporation of India, for a special train with ventilated containers for long distance transport of fresh fruits and vegetables.



A team of CIPHET scientists led by Dr S.N. Jha, Head, AS&EC Division modified the standard design of freight containers to suit for long distance transport of fruits and vegetables. According to NHB, the trial testing on field revealed that at least 4% post harvest losses were minimized using new design, besides quality of produce was maintained as fresh. In collaboration of Indian Railways, NHB has transported various fruits and vegetables using this container on train, which is called horticultural train.



Train loaded with banana at Jalgaon for Azadpur Mandi, New Delhi



Offloading of Nasik onion in Kolkata for export to Bangladesh

RAC meeting conducted

Research Advisory Committee meeting of CIPHET was organized during July 17-18, 2012 under chairmanship of Dr S.M Ilyas, former Director, CIPHET & now Project Director, Distance Education at National Institute of Rural Development, Hyderabad. The objective of this meeting was to formulate strategies for future research and study the progress of existing projects at the institute. The chairman expressed the need of



technological interventions for developing affordable packaging, cutting cost of transportation and providing higher density of nutrition in food items, etc. All researches should be carried out after keeping end consumers in mind. He wished the institute to expand at global level. ADG (PE), Dr K.K Singh, stressed that recommendations of RAC should be strictly followed. Dr U.S Shivhare, Director, CIPHET said that during last five years. CIPHET has commercialized 26 technologies and five consultancy projects were taken up. The institute was awarded with six patents and received Rs 2.2 crores for establishing food safety and quality laboratory. He apprised that institute received Rs 12.5 crores from external funding agencies for various research projects during the period. The team included Dr B. Ranganna, Emeritus Professor, University of Agricultural Sciences, Bangalore; Dr T K Srinivasa Gopal, Director, Central Institute of Fisheries Technology, Cochin; Dr D.C Joshi, Dean, Faculty of Food Processing, Technology & Bio Energy of Anand Agricultural University; Dr R.K Pal, Head, Division of Post Harvest Technology, IARI; Dr A.M Paturkar, Professor and Head, Department of Veterinary Public Health, Bombay Veterinary College; Dr Maninder Arora, Head, Department of Microbiology, PAU, Ludhiana. The team also visited various research facilities at CIPHET and appreciated technologies developed by the institute.

Scientist got Rafi Ahmed Kidwai Award

Dr. S. N. Jha received the prestigious Rafi Ahmed Kidwai Award of ICAR from Honorable Agriculture Minister Sh. Sharad Pawar at NAAS Complex, New Delhi on 16 July, 2012. He is pioneer in nondestructive methods of quality evaluation of foods and post-harvest technology of *makhana* in India. He has been involved in need based research to uplift the condition of poor involved in *makhana* processing and to help the country in reducing post-harvest losses of fruits.



His major outstanding contributions are: development of processing technology for *makhana*, nondestructive methods for prediction of maturity and sweetness of mango, freshness index of eggplant, detection of adulterants in milk and fruit juices, tomato storage technology for hot and humid atmosphere, improved evaporatively cooled storage structure and ventilated container for short term storage and long distance transport of horticultural produce respectively. Dr. Jha has evolved new vistas of quantitative/precision post-harvest technology of fruits in general and food quality and safety in particular and has given leadership in conducting researches in upstream area of postharvest technology in the country.

CIPHET organized soybean processing training

A two-days training programme on soybean processing was conducted during July 24-25, 2012 at CIPHET, Ludhiana. Twelve participants from various parts of Punjab (Ropar, Ludhiana, Bathinda, Sangrur and Barnala), Rajasthan, Gujarat with varied profession underwent the training programme. Dr U.S Shivhare, Director, CIPHET addressed the participants that soybean has highest level of protein and also rich in bio active compounds.



Presently, out of the seven million tons of annual production of soybean in the country, about 80 percent is used for oil and soymeal and only 10 percent is used for seed and direct conversion into various food products. There is lot of potential in soy processing, if scientific standards of quality are maintained and thus it could become very viable business. He apprised the participants that many entrepreneurs after getting training from the institute have successfully established their enterprises. He advised them to start from low scale and scaling up their units over the period of time. He assured participants that even after completion of training; all kinds of technical support for the establishment of the project will be provided to them by the institute.

CIPHET conducted training on green chilli processing

CIPHET completed two-days training programme on chilli processing during July 26-27, 2012. Three farmers from Punjab, Gujarat and Rajasthan took part in the programme. The green chilli processing technology has immense potential for consumers as well as to the farming community. With this technological intervention of CIPHET, farmers would be able to harvest chilli early in time and fields could be used for the next crop. Moreover, green chilli powder has more natural taste than red chilli and its colour has higher acceptability for various dishes.

Agro processing training conducted at CIPHET

Aiming to encourage self employment, two-days training programme on agro processing was conducted at CIPHET during August 22-23, 2012. Farmers from Bihar, Punjab and Maharashtra participated in this program. They were given hands-on-experience in pulses processing, ginger processing, flour milling, spices processing, turmeric processing etc. Head TOT Dr D R Rai advised them to maintain highest standards of quality. Customers are today highly aware about the quality and no one could succeed in the market for very long by compromising it. He asked the participants to avoid using polish on pulses for increasing their appeal. This could pose serious health problems for the consumers. One of the participant who is working as a Medical Representative in Maharashtra, said that he wanted to shift to agro processing business. A film on the research activities of CIPHET was also shown.

Nigerian delegates visited CIPHET to explore collaborative areas

A 11 member high level delegation from Nigeria visited CIPHET on August 29, 2012 to explore collaborative areas and explore possibilities in post harvest sector. The delegation



was headed by Prof Abubakar Baba Yusuf, Executive Secretary, Agriculture Research Council of Nigeria and Prof Damian O. Chikwendu, National Coordinator of West Africa Agricultural Productivity Programme. Prof Abubakar Baba Yusuf said that they wanted to know the new developments in Indian agriculture scenario. Although Nigeria has agriculture research institutes, but recently government of Nigeria has connected all

institutes under the umbrella of agriculture transformation programme. So, Nigeria is looking towards India as a lead partner. The delegation was impressed with the research initiatives carried out by CIPHET.

Director, CIPHET, Dr U.S Shivhare apprised the delegates about institute activities. Project Coordinator (PHT) Dr S.K Nanda, Project Coordinator (APA) Dr P. R. Bhatnagar, Head FG&OP, Dr R.K Gupta, Head TOT, Dr D R Rai and Dr. S. N. Jha, Head AS&EC informed delegates about research activities in their respective divisions. A film on CIPHET was also screened.

Summer School organized

Division of Foodgrains & Oilseeds Processing, Central Institute of Post Harvest Engineering and Technology, Ludhiana has organized an ICAR sponsored Summer School on “Newer Concepts & Techniques in Development of Health Foods” from July 01-21, 2012. Dr. R K Gupta was the Course Director and Dr. Sangita Bansal and Dr. Manisha Mangal were the Co-Course Directors of the summer School. The school was



inaugurated by Dr. RP Kachru, Ex- ADG, ICAR, New Delhi. Speaking on the occasion, the chief guest of the function, Dr. RP Kachru emphasized on the importance of health foods. He also mentioned that concept of health food is not new to India. We need to search our ancient literature to reinvent what health food is all about. He also discussed that right kind of health food in right amount is beneficial for health and well being. Dr. U. S. Shivhare, Director, CIPHET, in his inaugural address said that main factors that led to the endorsement of the health foods concept are increasing life expectancy and increased cost of medicare. He emphasized that one of the most challenging task where CIPHET could play a role is to make health foods available at reasonable cost.

The course had been designed to provide a complete exposure to the recent concepts of value addition, quality control, processing and packaging, safety issues and regulatory standards of health food. It comprised of various lectures and practical sessions by experienced scientists from CIPHET as well as from other renowned institutions across the country. The main objective for organizing this summer school was to bring together multidisciplinary researchers/scientists working in food sector and to apprise them about the recent concepts and techniques in the development of health foods. The course also provided an opportunity to the participants to interact with subject-experts and fellow workers from different parts of the country and to update themselves with the latest information in the field.

QRT of AICRP on PHT held

A meeting of QRT of AICRP on PHT was held at SKUAST Srinagar Centre from June 20 – 22, 2012. In inaugural address, Dr. Shafiq A. Wani, Director of Research, SKUAST Srinagar welcomed Dr. R. P. Kachru, Chairman QRT, Dr. Rakesh Nigam, member QRT, Dr. B. Ranganna, Member QRT, Dr. S. K. Nanda, PC (PHT) and Dr. D. N. Yadav, Secretary QRT, Sectoral PIs and Research Engineers. In this meeting seven centres, viz., VPKAS Almora, HAU Hisar, AAU Khanapara, GBPUA&T Pantnagar, PAU Ludhiana, YSPUH&F Solan and SKUAST Srinagar presented the progress made during XI Plan. The meeting was successfully ended with the remarks of Chairman and members QRT. Special thanks are due to Hon'ble Vice Chancellor Dr. Tej Paratp for hosting nice dinner and to Dr. Hafiza Ahsan, HOD & PI AICRP on PHT Srinagar Centre for extending all sort of support.

Scientist joins CIPHET after advanced training on BOYSCAST Fellowship

Dr. D. M. Kadam, Sr. Scientist worked as BOYSCAST Fellow/ visiting scientist at Iowa State University (ISU), Ames, Iowa (USA) for one year (30-08-2012 to 21-08-2012) on “Bactericidal Nano-functionalized Biodegradable Corn Zein Polymers as Shelf-life Extending Food Packaging Materials” which was sponsored by DST (GOI), New Delhi to get trained in the advance field of Nano technology. Apart from the corn zein, he has also worked on whey protein isolates (WPI) and soy protein isolates (SPI) to develop biodegradable films with or without nano particles using different techniques such as casting method, extrusion blowing, extrusion sheet making and compression moulding and application of sonication. He also learned the development of gold nano particles, use of TEM/SEM and microbial testing.

Training / conference attended

- Dr. M. R. Manikantan, Sr. Scientist, FG&OP Division & OIC PME Cell participated in training program on “Consultancy Project Management” during 7-14, August 2012 at NAARM, Hyderabad.
- Dr. Sangita Bansal, Sr. Scientist, FG&OP Division attended a 21 days training on “Conventional and Biotechnological Approaches in Crop Improvement” from 7-27 August 2012 in the Department of Plant Breeding & Genetics, Punjab Agricultural University, Ludhiana.
- Ms. Monika Sharma, Scientist, FG&OP Division, attended UGC sponsored National Seminar on “Food processing & value Addition of Fruit & Vegetables for Women entrepreneurs” on 24th-25th Aug, 2012 at Gopichand Arya Mahila College, Abohar. She gave a presentation on “Applications of Nanotechnology in Food Processing, Packaging and Safety”.

New Joining

- Sh. Neeraj Tahliani, joined as Finance and Accounts officer at CIPHET, Ludhiana.
- Sh. S.S. Verma joined as Private Secretary at CIPHET, Ludhiana.

For Further Details Contact:

Dr. U.S. Shivhare, Director or
Dr. M.R. Manikantan, Sr. Scientist
Central Institute of Post Harvest Engineering & Technology
Ludhiana, 141004 (Pb.)
Phone: 91-161-2308669, 2305674, 2313119; Fax: 91-161-2308670
Email: ciphet@sify.com; Web Page: <http://www.ciphet.in>