



**Central Institute of Post Harvest Engineering and Technology**  
**(Indian Council of Agricultural Research)**  
**Ludhiana, India**  
**Our Slogan: Produce, Process and Prosper**

**CIPHET E – Newsletter for July 2006**  
**Vol. I No. 1**

**Message from Dr. Nawab Ali, Deputy Director General (Engg.),  
ICAR, New Delhi**

India produces more than 750 million tonnes of food items of plant and animal origin. The agricultural commodities are generally perishable in nature. While some are highly perishable like fruits and vegetables and livestock and fish products, the others are relatively less perishable like food grains, oilseeds, certain tuber crops, cotton, jute and kenaf etc. It is roughly estimated that the loss of the food commodities vary from 10% for the cereal, pulses and oilseeds to more than 25% for perishable commodities.

To arrest these huge post harvest losses, Govt. of India established an Institute named as Central Institute of Post Harvest Engineering and Technology at Ludhiana on Dec 29, 1989. Institute has developed a good number of equipment and technologies, which are being used by farming community as well as agri-business entrepreneurs. Post harvest management and value addition go hand in hand to reduce post harvest losses and enhance value of the product, which is beneficial to both. CIPHET has been working on development of newer and innovative technologies and products from major cereals, pulses, oilseeds, fruits and vegetables. It is high time to use information technology in effective dissemination of these technologies. The electronic newsletter by CIPHET will help in showcasing activities of the Institute.

The effort of the institute to bring out this e-newsletter to its viewers and get feedback from the readers is highly appreciable. I wish them good luck in this endeavor and hope that the institute would be able to meet the expectations of farming community and agri-business entrepreneurs.

**(Dr. Nawab Ali)**  
**DDG (Engg.)**

**Events:**

**1. Dr. R.T. Patil joined as 6<sup>th</sup> Director of the Institute**

Dr. R. T. Patil Joined as Director of the institute on June 9<sup>th</sup> 2006. He was serving earlier as Principal Scientist at Central Institute of Agricultural Engineering, Bhopal. He was also PI of the Value Addition and Post Harvest Management component of NATP-Jai Vigyan Mission Project. He obtained his B. Tech. (Agri. Engg.) degree

with gold medal from MPAU Rahuri in 1977, followed by M. Tech. with distinction from Indian Institute of Technology, Kharagpur in 1979. He obtained his PhD in Bio Process Engineering from University of Saskatchewan, Canada with a best thesis award from Canadian Society of Agricultural Engineers and finished 2 years Post Doctoral Fellowship at WSU, Pullman USA. Dr. Patil has so far developed 16 research prototypes, 5 process protocols, 3 pilot plant level technologies and contributions to two US patents with 98 published papers in national and international journals and 57 presentations (4 presentations received best paper award) in national and international seminars.

**2. Dr. R.T. Patil attends a review meeting to upgrade PPRC to National Institute.**

Dr. R. T. Patil, Director was a member of a team to review Paddy Processing Research Center, Tanjavur for its up gradation to the level of national institute. The PPRC was established 1972 in Tamil Nadu to solve the major problem of high moisture paddy in storm/ cyclone affected areas due to excessive rains during harvest and needs to be strengthened by upgrading to the status of a national institute with expanded mandate.

**3. Dr. R.T. Patil visits JNKVV Jabalpur and CIAE Bhopal**

Director was chief guest on 07.07.2006 for valedictory function of Training – the trainers’ programme in Soybean Processing and Utilization at Jabalpur. The College of Agricultural Engineering at JNKVV Jabalpur had organized this 4 days training programme on Soybean Processing Technologies for trainers. The 24 participants from different 6 states had participated in the programme. The Programme was sponsored by ASA (American Soybean Association) and SFPWA (Soya Food Promotion & Welfare Association). In his valedictory address he suggested ASA and SPUWA to undertake such programmes in different parts of the country by pulling the faculty from SPU, CIAE and JNKVV Jabalpur. On July 10<sup>th</sup> and 11<sup>th</sup>, he also interacted with scientists of CIAE for possible collaboration and mutual use of research facilities.

**4. Training programmes for Agricultural Engineering graduates concludes**

CIPHET provides the facilities of training to final year engineering graduates of agricultural and food technology disciplines. 12 agricultural engineering graduates attended the recently completed programme on June 30, 2006. The students were from PAU, Ludhiana; K. K. Wagh College of Agricultural Engineering, Nasik and Dr. Ulhas Patil College of Agricultural Engineering, Jalgaon.

**5. Director and Dr. S.N. Jha attended a meeting at MERADO on June 29, 2006 for possible funding opportunities by DST in the area of agricultural engineering. The participants were from PAU, DST, CSIO, MERADO and GNEC, Ludhiana.**

6. Director and Dr. R.K. Gupta had meeting on June 28, 2006 with Dr. O.P. Bajpai, Director, National Technical Teachers Training Institute for collaboration of CIPHET in their rural development programmes.
7. Dr. Pratap Singh and Dr. A.N. Mathur visited CIPHET on 19.06.2007 and addressed scientists about expectations of the country from CIPHET as a lead institute in the area value addition and post harvest management of agricultural, horticultural and aqua cultural commodities.
- 8. CIPHET organized entrepreneurship development programme on sunflower kernel based confectionery products**

A five days entrepreneurship development programme on “Processing and utilization of sunflower kernels for novel confectionery products” was organized at CIPHET Ludhiana from 17-21, July 2006. During the five days programme, the entrepreneur was given exposure on cleaning, grading and dehulling of sunflower seed, demonstration on roasted sunflower kernel snack foods and confectionery products, preservation and packaging of sunflower kernels and confectionery products, production of protein isolates and concentrates from defatted sunflower meals, quality evaluation of products and project profile preparation. At the end of the programme, valedictory ceremony was organized. Dr.R.T.Patil, Director, CIPHET presided over the function. Dr.R.K.Gupta, Senior Scientist and Training Coordinator of the programme welcomed the august gathering and briefed about the training programme. Dr.R.T.Patil, Director, CIPHET distributed the certificate and congratulated the entrepreneur for taking the entrepreneurship training in sunflower kernel products. He suggested the entrepreneur to display his developed products in schools and market complexes for the popularization of the product. He also informed that CIPHET would conduct such entrepreneurship development programmes on different products in future. Dr.D.S.Uppal, Head (TOT) addressed about the prospects of sunflower based products in the market. Finally, Er.M.R.Manikantan, Scientist (SS) proposed a formal vote of thanks.

9. Dr. SK Nanda, PC (PHT) participated in training programme on Life Sciences at Coonoor (India) from July 16-21, 2006 under Cornell Satguru Food Agri Business Management Programme.
10. Dr. OD Wanjari, PC (APA) visited AMU Aligarh to evaluate a M. Tech thesis titled performance evaluation of jaggery coated chocolate on June 24, 2006.

#### **11. Team of CIPHET scientists visits Aonla processing industries**

The team consisting of Dr. R.K.Goyal and Er. A.R.P. Kingsly visited aonla processing industries at Pratapgarh and Kotputali (Jaipur) to assess the processing needs and existing problems faced by the industry. They had in-depth discussion with the entrepreneur and suggested novel products of aonla prepared by the Institute. Industry showed interest and agreed to prepare these products.

## 12. Mr. Subhash Bhatia, Member, ICAR visited CIPHET

Mr Bhatia visited CIPHET on July 20-21, 2006. He was briefed about ongoing activities and shown the laboratories and other facilities. He had in-depth discussion with the Director regarding promising technologies, which can be commercialized through Entrepreneurship Development Programme.

### **Awards:**

Dr. R.R. Sharma, Scientist (Horticulture) from CIPHET received an ICAR award for his book titled, “Strawberry: *Adhunik Utpadan Takaneeke* (Hindi)”

**Heartiest Congratulations!**

### **Transfer:**

Dr. L.S.Gangwar, Sr Scientist (Agril. Eco.) transferred to Central Aviation Research Institute, Barrielly and he was relieved on 25.07.06.

Mr. Binod Kumar, Sr. Library Asstt. transferred to Indian Lac Research Institute, Ranchi and he was relieved on 29.07.06.

**Wishing them good luck!**

### **Joining:**

Dr. K. Narsaiah joined the Institute as Senior Scientist on promotion in the discipline of AS&PE on 20.07.06. Earlier he was working at National Dairy Research Institute Karnal as Scientist (Sr. Scale).

**Heartiest Welcome!**

### **Promotions:**

Dr. Dinesh Singh, scientist (Sr. Scale) got selected as Senior Scientist for IARI, New Delhi through direct recruitment by ASRB and he was relieved on 22.07.06.

Dr. R.R.Sharma, Scientist (Sr. Scale) got selected as Senior Scientist for IARI, New Delhi through direct recruitment by ASRB and he was relieved on 31.07.06.

**Heartiest Congratulations!**

**R. K. Goyal,  
Senior Scientist &  
Information Manager**

### Technology of the month

CIPHET scientists have developed simple to use Maize Cob Sheller. The unit is an unique design, which can reduce the drudgery involved in manual deshelling of maize substantially. The **CIPHET ROTARY MAIZE COB SHELLER** consists of shelling device fitted on a stand in such a way that a single man can operate and shell the cob (Fig 1). The shelling part of cob sheller consists 6 fins in such a way that grain is detached from cob by shear and thrown away by the other to outside the shelling device. Shelling part moves in rotary motion while cob is pushed inside axially and the process is continued until about three fourth of the cob is shelled and withdrawn so that its other end is inserted and complete shelling is done. There is no drudgery at all and comfortable to operate upon. Shelling capacity enhances largely without causing any damage to hands. Cost of complete assembly with full fabrication charges is Rs. 1500/-. The capacity of rotary maize cob sheller was found 45.9 kg/hr for the unit shown in Fig. 1. However, low cost rotary maize cob sheller for low financial capacity farmers is also designed at a cost of Rupees 700/-. This sheller is without brackets and bearings (Fig 2).



## Director's Column



Dear All,

I am very happy to present to you first ever Electronic newsletter of **Central Institute of Post Harvest Engineering and Technology (CIPHET)**. The major mandates of CIPHET are to develop technologies suitable for catchment areas to prevent post harvest losses and to develop value added products so that farmers get better return. The institute is working on developing package of technology for various food grains, fruits and vegetables suitable for adoption by small-scale industries in the catchment areas. Since internet is a greatest invention of mankind and most effective way of communication and exchange of information, we have decided to make use of it to let you know what we are doing and appreciate receiving your constant comments and suggestions so that we can continuously modify our research programmes and give the output suiting to demand of Indian Farmers and Agro business entrepreneurs. It is a monthly news magazine giving mainly CIPHET activities, however we will also bring to you information on recent innovations/developments in the value addition & PH management in the country and around the globe.

With best regards.

**R.T. Patil**  
**Director**

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