



**Central Institute of Post Harvest Engineering & Technology
Ludhiana
OUR SLOGAN: PRODUCE, PROCESS AND PROSPER**

**CIPHET E - Newsletter for January - February, 2012
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Director's Column



Dear All,

To take stock of research activities initiated by CIPHET especially in the area of fisheries sector, identifying the collaborative areas and assessment of post harvest losses in fisheries sector, Dr. B. Meena kumari, Deputy Director General (Fisheries) of Indian Council of Agricultural Research (ICAR) visited the institute.

Thirty researchers and scientists from African countries visited CIPHET to get information on various activities initiated by the institute in area of post harvest sector and to identify various collaborative areas.

CIPHET signed a MoU for licensing the technology of potato enriched cattle feed to Mr. D. S. Oberoi, President of Dairy Association and Ludhiana based dairy farmer.

In a major step towards providing technology at grass root level, CIPHET signed a MoU with NABARD for disseminating technology of cattle feed from potato waste.

Ms. Deepika Goswami, Scientist, bagged the "Best Athlete"(women) trophy in the ICAR Inter Zonal Sports Tournament held at IARI, New Delhi. She also received the "Best Paper Presentation Award" at 47th Annual Convention of ISAE and International Symposium on Bio Energy Challenges and Opportunities" held at A.N.G.R.A.U., Rajendranagar, Hyderabad.

With best regards,

**U. S. Shivhare
Director**

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Deputy Director General (Fisheries), ICAR Visited

Dr. B. Meena kumari, Deputy Director General (Fisheries) of Indian Council of Agricultural Research (ICAR) visited the institute on January 28, 2013 to take stock of research activities initiated by CIPHET especially in the area of fisheries sector, identifying the collaborative areas and assessment, prevention and reduction of post harvest losses in fisheries sector. Speaking on the occasion, Dr. B. Meena kumari said that fisheries sector of India has immense growth potential both in marine as well in fresh water. “Providing quality seed and proper feed are the biggest challenges in fisheries sector,” she said. In her opinion, “Innovative thinking is required for putting growth in fisheries sector on fast track. As the CIPHET is a premier institute in post harvest sector, it could play a vital role in development of technologies in storage, transportation, handling and packaging etc.” Dr. D. R. Rai, Head, ToT Division, informed the DDG Fisheries about the fish descaling machine and fish processing cum display unit developed by the institute recently. Dr R. K. Gupta, Head, Food Grains and Oil Seeds Processing division spoke on various research activities initiated by the institute in the area of post harvest sector. A film on success story of Sh. Sultan Singh, entrepreneur in fisheries was screened on the occasion. She also visited the various research laboratories of the institute and expressed satisfaction over the progress.



African Delegates Visited

30 researchers and scientists from African countries visited CIPHET on February 26, 2013 for getting information regarding various activities initiated by the institute in post harvest sector and for identifying various collaborative areas. Dr. P. Chandra Shekhra, Director (Agricultural Extension) of National Institute of Extension Management, Hyderabad, was leading the delegates from Liberia, Kenya and Malawi. Addressing the scientists, Dr P.R Bhatnagar, Officiating Director informed the delegation about contribution of the institute in post harvest sector and recent



achievements. Dr. D.R. Rai, Head Transfer of Technology Division said that ToT division is conducting number of hands-on-training, entrepreneurship development programmes, providing consultancy and contract research for dissemination of the technologies. Dr. Shekhra said that the visit of delegates was the outcome of the treaty between United States, India and African countries for ensuring food security in African countries. A video film on research activities of the CIPHET was also screened on the occasion.

Potato Enriched Cattle Feed Technology Licensed

On February 2, 2013, CIPHET signed a MoU for licensing the technology of potato enriched cattle feed to Mr. D. S. Oberoi, President of Dairy Association and Ludhiana based dairy farmer. On this occasion, Dr. U.S. Shivhare, Director CIPHET informed that, this technology has immense potential for entrepreneurs as well as farmers. On one hand use of potato waste in feed would bring down prices of cattle feed and on the other hand farmers would get better price of potatoes during glut as feed could be stored for more than six months. Dr. Devinder Dhingra, Principal Scientist in ICAR and Dr Sangeeta Chopra, Sr. Scientist at CIPHET, have standardized the technology. The commercial feed available in market having combination of maize, barley, rice bran, husk, oil cake and mineral mixture was replaced by 30 percent with the potato waste. Mr. D.S. Oberoi said that he had already used cattle feed made in CIPHET plant in his dairy farm for ascertaining results and it has high acceptability among the animals. Its consistent use has shown increase in milk yield. He added that he would soon set up a manufacturing plant for this technology at commercial level.



MoU Signed with NABARD for Technology Transfer

In a major step towards providing technology at grass root level, CIPHET signed a MoU with NABARD on February 11, 2013 for disseminating technology of cattle feed from potato waste. Appreciating the role played by NABARD in rural up-liftment, Dr U.S Shivhare, Director, CIPHET said that collaboration with organizations like NABARD would help in development of entrepreneurship in rural areas. The MoU would go long way in promoting technology as NABARD has strong network with farmers in the form of *Kisan Clubs*.



Farmers Awareness Program conducted



CIPHET organized an awareness program about its developed technologies on February 8, 2013 during launching of two *Kisan clubs* by NABARD in the villages Fangla & Jalla of Ludhiana. On this occasion, Dr D. R. Rai, Head, ToT division informed the farmers that they can increase their income by adopting technologies of value addition in post harvest sector. He added that the institute is

providing trainings to farmers in soybean processing, green chilli powder, spices processing, cattle feed and many other technologies for rural catchment areas. Mr Nalin Rai, Deputy District Manager of NABARD revealed about various schemes of NABARD for providing cheaper loans to farmers and he informed that NABARD is sponsoring number of trainings for farmers in various institutes.

Participation In ICAR Inter Zonal Sports Tournament

Ms. Deepika Goswami, Scientist, FG&OP division participated in the ICAR Inter Zonal Sports Tournament held at IARI, New Delhi during January 18-21, 2013. She won 2 gold and 2 bronze medals in athletic events. She was runner up in badminton singles and doubles (women) event. She was also awarded the “Best Athlete” (women) trophy in this meet.



Trainings Conducted

- Three days training on the ‘Micro Encapsulation Methods for Food and Biotechnological Application’ was inaugurated at the institute. The technology holds the promise of increasing shelf life, controlled release of nutrients and development of various kinds of functional foods. Notably, growing urbanization and increasing quality consciousness among the consumers has led to rapid growth in the market for processed foods and functional foods. Microencapsulation paves way for development of innovative functional foods. Dr. U.S. Shivhare, Director, CIPHET informed that institute has undertaken research in the area of micro-encapsulation and patents in this regards have already been filed. He said. “Micro-encapsulation has high potential for development of various kinds of functional foods and increasing shelf life. This training programme would help in dissemination of this modern science to the researchers and scientists”. Dr. K. Narsaiah, Senior Scientist and Coordinator of the Training Programme, informed the participants about the course content and progress made by the institute in this area.



marketing of agricultural produce etc. Dr D.R. Rai, Head Transfer of Technology Division coordinated the training programme.

- A five days training programme on “Post harvest technologies for rural catchments” was conducted for 23 farmers from Osmanabad, Maharashtra during February 11-15, 2013. Training was sponsored by the Maharashtra Agriculture Competitive Project (MACP), Osmanabad. The training programme consisted of agro processing technologies from AICRP on Post Harvest Technology, soybean processing technology and

Conferences/ Seminars Attended

Ms. Deepika Goswami, Scientist, FG&OP division participated in the “47th Annual Convention of ISAE and International Symposium on Bio Energy - Challenges and Opportunities” held on January 28-30, 2013 at A.N.G.R.A.U., Rajendranagar, Hyderabad

(AP) and presented a paper on “*Effect of barnyard millet flour on quality characteristics of muffins*”. The paper was presented in ‘Agricultural Crop Processing’ Session of the Theme area ‘Processing, Dairy and Food Engineering’ and bagged the “Best Paper Presentation Award”. Dr. S.N. Jha, Head, AS&EC division was conferred ISAE fellow award. Dr. K. Narsaiah, Sr. Scientist bagged the ISAE Commendation Medal. Dr. D. R. Rai, Head ToT division, Dr. Sangeeta Chopra, Sr. Scientist and Dr. M. R. Manikantan, Sr. Scientist received Distinguished Service Certificate award for their outstanding contribution in the field of Agricultural Engineering.

Nutritious Products From Pearl Millet



Pearl millet is considered as nutri-cereal due to its well-balanced protein, with high concentration of tryptophan and leucine. Pearl millet possesses high iron and zinc content with better mineral profile than many other cereals. However, the food use of pearl millet is presently restricted due to rancidity of flour and lack of appropriate processing technologies. CIPHET has standardized the technologies for developing high value food products from pear millet. CIPHET has developed processing techniques under the National Agricultural Innovation Project (NAIP) “Value chain composite dairy foods with enhanced health attributes”. The developed products are comparable to commercially available products like *Kurkure*, *Puffs* and *Infant foods*. These products have more nutritional value with added advantage of fibers. Since, these products are based on pearl millet, they are also gluten free and suitable for coeliac patients. Dr. D.N Yadav, Senior Scientist revealed that that *upma* and *halwa* mix has shelf life upto six months. Dr. U.S Shivhare, Director, CIPHET said that the unit for production of above products could be set up with a cost from Rs 12 to 15 lakhs as initial investment. The commercialization of these products has the potential to provide stability, reliability and higher value for millet and millet products. This will also improve the income of poor farmers adopting agro food industry.

Joining/ Promotions

- Sh. Prasoon Verma transferred from Indian Institute of Pulse Research (IIPR), Kanpur and joined CIPHET, Ludhiana.
- Sh. Pawan Kumar, Assistant, promoted to the post of Assistant Administrative officer at CIPHET, Abohar.
- Smt. Jasvir Kaur, UDC, promoted to the post of Assistant at CPHET, Ludhiana.
- Sh. Ashwani Kumar, LDC promoted to the post of UDC at CIPHET, Ludhiana.

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