

# Central Institute of Post Harvest Engineering and Technology, Ludhiana

Our Slogan: Produce, Process and Prosper

CIPHET E – Newsletter for September, 2008

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Director's Column



Dear All,

The important development this month was initiative by NAARM to start the PG diploma in IT Management in Agriculture. Similar to the share in consumer's rupee the percolation of scientific information to farmer is very low i.e. 8% and hence the newer technique like internet and modern electronic/digital Information & Communication Technologies will have to play a very important role. The internet has become a cost effective source for sharing infinite information, however, the challenge is to how effectively we can create bridge professionals who make use of these advancements for the benefit of farming/rural community and transform these advancements in terms of increased productivity & profitability and the efforts by the NAARM to fill the gap of creating properly trained Bridge Professionals through proposed one year PG Diploma on Information Technology Management in Agriculture (PGD-ITMA) is a very timely initiative.

Another important event was Expert Level Seminar on "Enhancement of Productivity and Profitability of Crops in India and ASEAN Countries" to strengthen cooperation in agriculture between India and ASEAN countries during September 11-12, 2008. This opportunity promoted the principle of sharing and concern among participant countries for their common good. The representative from Ministry of External Affairs, Govt. of India, ICAR, ASEAN Secretariat, Jakarta, and country representative from Indonesia, Brunei, Cambodia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam made presentation on status of agriculture in their countries.

During this month, **The Agriculture Today foundation** organized **The Agriculture Leadership Summit 2008**. The foundation felicitated the towering personalities in the field of agricultural development in the country. The important initiative by the Maharashtra Society of Extension Education was International seminar International Seminar on "Strategies for Improving Livelihood Security of Rural Poor" organized by ICAR Research Complex for Goa during September 24-25, 2008. The extension scientists so far concentrate their efforts on production agriculture and to get their at tension for extension of post harvest managements results I attended this seminar and presented a lead paper on "Effective Post Harvest Management and Value Addition for Improving the Rural livelihood" Another important milestone in post harvest activity of horticulture crop was formation of a growers association of papayas grower in Maharashtra so that member farmers can be empowered to produce good quality produce for report which is also handled by this association so that farmers get maximum share in the consumers rupee. Hindi Pakhwada was celebrated at our both campuses so that employees are encouraged to increase usage of Hindi which is an ultimate requirement for the unification and overall progress of the country.

Through this issue I am very sorry to inform you all the sad demise of our colleague and friend Dr. O D Wanjari on Sept 18, 2008. He was very pleasing and soft spoken personality and was a first scientist to join CIPHET and hence his contribution to CIPHET as well as to the profession of agricultural engineering will be remembered forever.

With best regards

**R.T. Patil,**  
Director

## **In this issue**

### **ICT in Agriculture**

**CIPHET Scientists Participated in NAFHSHA at DIHAR, Leh Meeting Global Food Crisis through Cooperation-Indo-ASEAN Efforts**

**New orchard established at CIPHET Abohar**

**Field Experience Training for ARS Probationers at CIPHET, Abohar**

**Agriculture Leadership Summit 2008 at New Delhi**

**International Seminar on “Strategies for Improving Livelihood Security of Rural Poor”**

**Director CIPHET inaugurates formation of Papaya Growers Association in Pune**

**Transfer of Evaporative Cooled Structure Technology to Madhya Pradesh**

**Warehousing and Logistics Corporation, Government of Madhya Pradesh**

**CIPHET Offers a Specially Designed Training on Production and Processing of Fruits and Vegetables**

**Punjab Horticultural Development Officers visit CIPHET**

**Entrepreneurship Development Programme on Post Harvest Technology for Production Catchments for Bihar Farmers**

**Training programme on Soybean Processing**

**Awareness cum Entrepreneurship Development Camp in the village**

**CIPHET get NAIP sub-project on Value Chain for Vegetables as Cooperating Centre**

**Technology of the month**

**Joining**

**Obituary**

**Publications of the month**

## **ICT in Agriculture**

In India only less than 8% of scientific information percolates to farmers and to improve this situation, modern electronic/digital Information & Communication Technologies will have to play a very important role. Hence efforts are needed to capture and spread information on sustainable agricultural practices like organic farming & plantation, traditional farming & water harvesting techniques, seed banks, organic manure, multiple crops & predator for pest control besides modern day industrial farming. The modern ICT provided at grass root level will enable farmers (especially small & marginal) to get timely and relevant information for sustainable livelihoods. The internet has become a cost effective source for sharing infinite information, however, the challenge is to how effectively we can create bridge professionals who make use of these advancements for the benefit of farming/rural community and transform these advancements in terms of increased productivity & profitability. The efforts by the NAARM to fill the gap of creating properly trained Bridge Professionals through proposed one year PG

Diploma on Information Technology Management in Agriculture (PGD-ITMA) is a very timely initiative. The main aim of this course is to synergize Computer Science & Technology and Agricultural Science & Technology to facilitate "Agricultural Informatics Management".

Dr. R. T. Patil, Director CIPHET attended a Brain Storming session at NAARM during September 6-7, 2008. About 40 participants from Govt. private, NGO and industry, educational, financial institutions and the senior faculty members had participated in this exercise. All the participants lauded efforts of NAARM in initiating the much-needed course for the benefit of Indian agriculture. The broad objectives of meeting were –

1. Bring together the thought leaders of ICT initiatives in Agriculture.
2. Briefly understand the current level of success in introducing ICT in the three categories of invited organizations.
3. Capacity building measures for Agriculture background IT Professionals in their respective organizations.
4. Guidance & Suggestions on the attached curriculum of PGD-ITMA and its suitability in meeting and taking further successfully their existing ICT initiatives.
5. Internship Opportunities to fine-tune the PGD ITMA students to meet the requirements of the organization's immediate and future capacity building plans.
6. Placement Assistance/Assurance.
7. Popularizing any ICT Products/ Services by including it in the PGD ITMA curricula.
8. Possible synergizing of efforts among the participants preferably with NAARM's help.

At the end of the programme networking of all stake holders was done and a token MOU was signed between NAARM and willing organizations for internship of students as well as for their prospects of employment.

### **CIPHET Scientists Participated in NAFHSHA at DIHAR, Leh**

Dr. P.R. Bhatnagar, PC, APA and Dr Dilip Jain, Senior Scientist attended an International Conference on Novel Approaches for Food and Health Security in High Altitudes (NAFHSHA) during 6-10 September 2008 at Defense Institute of High Altitude Research (DIHAR), Leh-Ladakh. Leh is situated at altitude 3500 m from mean sea level. It is a cold desert. The focal theme of conference was to enhance performance & sustainable development of agriculture in high altitudes areas like Leh and to provide glimpses of futuristic approaches in these areas. Shri M. Nataraj, Scientific Adviser to Defense Minister, Government of India inaugurated the international conference. Lt. Gen. V.K. Ahluwalia, AVSM, VSM, GOC 14 Corps; Shri Chering Dorjay, CEC, Leh, Ladhak and PadmaShree Dr. B. Bhattacharjee, Hon'ble Member, NDMA were the Guest of Honours. Dr. Shashi Bala Singh, Director, DIHAR welcomed the delegates. The following papers from CIPHET were presented in this conference.

- Application of Plastic for Intensive Agricultural Production-Dr. PR Bhatnagar,
- Novel process technology of green chilli products-Dilip Jain, Ramesh Kumar, Mridula D., V.K. Bhargav and R.T. Patil, and
- Post Harvest Management and Value Addition of selected Fruits for Sustainable Development in High Altitudes-R.T. Patil, R.K. Gupta and D.B. Singh



## **Meeting Global Food Crisis through Cooperation-Indo-ASEAN Efforts**

With the aim to strengthen cooperation in agriculture between India and ASEAN countries an Expert Level Seminar on “Enhancement of Productivity and Profitability of Crops in India and ASEAN Countries” was organized during September 11-12, 2008 at Lecture Hall, NASC Complex, New Delhi. Director CIPHET attended this seminar and presented the status of post harvest management and value addition technologies available in India, which can be adopted/shared with our ASEAN brethren. The seminar was intended to address the issues of low productivity, production and post harvest management of crops through identification of the areas of common/multilateral interests for complimenting the strengths and harnessing the potential available in agricultural research, education and extension in different countries, for their mutual benefit. The seminar also facilitated understanding between India and ASEAN as well as among all the ASEAN countries for addressing a common challenge of increasing production of crops and their utilization in the food system for solving regional problems. This opportunity promoted the principle of sharing and concern among participant countries for their common good. Director CIPHET attended this meeting and presented a status of technology available for post harvest management and value addition for the crops of common interest. Various agri business development activities and training programmes for prospective entrepreneurs being operated at CIPHET Ludhiana and which could be useful for ASEAN countries were explained through his presentation. The presentations made to the participants from council were on; Genetic Improvement of Crops by Dr. T.P. Rajendran, Horticulture by Dr. U. Shrivastava, Diseases and Insect Pest Management by Dr. T.P. Rajendran, Resource use efficiency by Dr. M.S. Gill, Climate Change by Dr. B. Venkateswarlu, Farm Implements & Machinery by Dr. M.M. Pandey and Post Harvest Technology and Value Addition by Dr. R.T. Patil. The representative from Ministry of External Affairs, Govt. of India, ASEAN Secretariat, Jakarta, and country representative from Indonesia, Brunei, Cambodia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam also made presentation on status of agriculture in their countries.

## New orchard established at CIPHET Abohar

A new orchard of 4 acres has been established at CIPHET, Abohar for modern and scientific cultivation of Pomegranate (2 acre), Ber (1 acre) and Aonla (1 acre). The pomegranate varieties included Mridula, Ganesh and G-137, Ber variety was Umran and Aonla varieties included NA-7, Laxmi and Chakaia. The drip irrigation facility was designed and laid down in the orchard which, was inaugurated by Dr. R. T. Patil on 15<sup>th</sup> September 2008. This facility will be used for demonstration cum training in diversified horticulture in Abohar region, will be used for research on working out the techno-economic feasibility of growing these crops and also will provide the quality raw material for developing novel value added products.



Director and Scientists looking to New Orchards



Director inaugurating Drip Irrigation Facility

After this visit Director, CIPHET visited a village where ARS probationers were undergoing training. A meeting was held with progressive farmer and village leader Mr. Jaswant Singh from village Ramsara, District Ferozepur to stress upon the importance of processing at village level. The progressive and wealthy farmers are potential entrepreneurs to take up such activity at village level. The village produces lot many crops, to begin with if all the mustard grown in the region if stocked and processed by progressive farmer it can be sold as farm fresh high quality oil in metro cites through specialty shops and cake can be used for villagers use. The village chief liked this idea and we hope that they may take up such activity.



Progressive farmers of Ramsara village with Director CIPHET

### **Field Experience Training for ARS Probationers at CIPHET, Abohar**

Five ARS probationers scientist of 84<sup>th</sup> FOCARS from NAARM, Hyderabad visited CIPHET, Abohar during 2-20 September, 2008 for field experience training in the villages. Probationers were provided with the facility for exposure and training at village Ramsara near Abohar. They studied and analyzed the impact of various development activities done by the State Government and further they also suggested the future development works need to be carried out. The probationers made presentations of their findings on 15<sup>th</sup> September in the presence of Dr. R.T. Patil Director CIPHET. Dr. R.K. Gupta Head, HCP was the FET Co-Coordinator and Dr. Rajbir Singh Brar, Co-Coordinator.



ARS Probationers and others are at village seminar including NAARM faculty



Presentations by ARS Probationers at CIPHET Abohar on Sept. 15, 2008

## **Agriculture Leadership Summit 2008 at New Delhi**

The Agriculture Leadership Summit 2008 was organized by Agriculture Today a prominent national agriculture magazine at New Delhi during Sept 19-20, 2008. This magazine is doing a great service to Indian Agriculture by publishing a latest and relevant information for the benefit of modern agriculturists. The CIPHET is a regular contributor of popular articles in this magazine on various topics related post harvest management. Director CIPHET attended this Summit. The first day activities were inaugural session followed by discussion groups of political leaders, subject experts, foreign representatives, farmers and NGOs and social leaders. In the evening there was agriculture leadership award function organized by Agriculture Today Foundation. The foundation felicitated the towering personalities in the field of agricultural development in the country. The policy leadership award was given to Dr. M.S. Swaminathan, Chairman, M.S. Swaminathan Foundation, the research leadership award given to Dr. V.L. Chopra, Member Planning Commission and also was given to Dr. E.A. Siddiq, Pioneer of India's Hy. Rice Research Program. Under the farming leadership category the awards were given to Sh. Mohinder Singh Grewal, Member, CACP and Chairman, Roopa Farm, Ludhiana and Sh. Sharad Joshi, MP (RS) and President, Shetkarti Sangathan. The state leadership award was given to Rice bowl of India i.e. state of Andhra Pradesh. The development leadership award was given to National Bank for Agriculture and Rural Development (NABARD). The corporate leadership awards were given to Mahyco Monsanto Biotechnology Limited (MBL) and Jain Irrigation Systems Limited (JISL). The foundation also honoured Dr. V Kurien, pioneer of white revolution in India, Dr. K.L. Chadha, father of horticulture revolution in India and Dr. R.S. Paroda, former DG, ICAR and Chairman, TAAS by giving life time achievement awards.

## **International Seminar on “Strategies for Improving Livelihood Security of Rural Poor”**

There is lot of emphasis on improvement of livelihood of rural people in the world, particularly in Asian and African continents. There have been several strategies for enhancing livelihood security of rural poor in these countries. However, there is a need for detailed discussion on various issues relating to improvement of livelihood in rural areas. Hence, an International Seminar was organized during Sept 24-26, 2008 jointly by International Society of Extension Education Nagpur, ICAR Research Complex, Goa and Maharashtra Society of Extension Education at ICAR Research Complex, Goa. The theme of the seminar was “**Strategies for Improving Livelihood Security of Rural Poor**”. In this conference participants from various parts of the world discussed and made recommendations for enhancing livelihood security of rural poor. The topics discussed in the seminar were: a) Livelihood security approaches, b) Livelihood security opportunities for rural youth and women, c) Diversification of livelihood for small and marginal farmers, d) Methods of livelihood analysis, e) Case studies on improvement of livelihood security, f) Policy changes for improving livelihood security and g) Strategies for improving livelihood security of rural poor. Director CIPHET attended this conference with a view highlight importance extension efforts in the area post harvest management and value addition. So far the efforts by extension scientists were mostly on production aspect and it is time that greater attention is paid to post harvest issues to minimize the huge losses taking place. Dr.

Patil presented a lead paper titled **“Effective Post Harvest Management and Value Addition for Improving the Rural livelihood”** in this seminar.

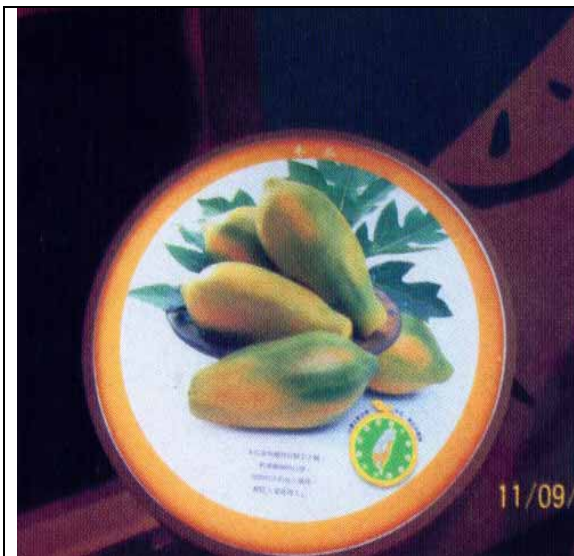
### **Director CIPHET inaugurates formation of Papaya Growers Association in Pune**

Maharashtra state is progressive in post harvest sector as well as in export of fruits, it is mainly due to awareness among the farmers for processing. The grower association formed for various fruits are doing very good job of bring the inputs and knowledge for growing exportable fruits and proper cleaning, grading, sorting and packaging associated with this good quality produce is resulting in higher return to the farmers which motivates them to produce even more. The major fruits growers association in Maharashtra are 1) "MAHAGRAPES", a co-operative partnership firm established on 19th January, 1991 with the help of the Maharashtra State Agricultural Marketing Board, Pune. 2) "MAHAMANGO", a co-operative partnership society established on 8th March, 1991, 3) Directorate of Agriculture Marketing and the Maharashtra State Agricultural Marketing Board established "MAHABANANA" organization on 1st January, 2002, 4) "MAHAORANGE" established on 10th March, 2008, 5) "MAHAANAR" established on 1ST August, 2005, and also other associations like Guava, Aonla, Custard apple, Organic Farming, Vegetables, Fig, Medicinal and Aromatic plants which are either national level associations or yet to be registered organizations but helping farmers to improve the productivity and get better returns from these crops. Most recent creation in this series is "MAHAPAPAYA" which was inaugurated by Director, CIPHET, Dr. R. T. Patil as Chief Guest on Sept 26, 2008. Other dignitaries present on this occasion were Mr. Uday Borawake, Chairman, Agriculture and Agro Industries of Maratha Chamber, Mr. Prabhakar Deshmukh IAS, Agricultural Commissioner, Government of Maharashtra, Mr. Prabhakar Phirke, Director of Horticulture, MS and Shivdas Tambe, President, MAHAPAPAYA and Coordintor of the movement Mr. Prakash Kulkarni. On this occasion one day training cum seminar on "Papaya Production & Post Harvest Technology" was organized which was attended by 350 progressive farmers from all over the state had participated. Director CIPHET presented an inaugural address and key note paper on "Post Harvest Technology and Value Addition of Papaya". The farmers were advised by Director CIPHET to take up value addition activity on cluster basis by developing a brand as well as develop post harvest infrastructure so that processing could be under taken throughout the year.





L to R Dr. Dinesh, Pr. Scientist, IIHR, Mr. Prabhakar Deshmukh, Agricultural Commissioner, MS; Mr. Uday Borawake, Chairman, Maratha Chamber of Commerce, Industry and Agriculture, Dr. R. T. Patil, Director, CIPHET and Mr. Shivadas Tambe, President of MAHAPAPAYA



Indian Papaya Advertisement in International market



Papaya packaging in CFB for Export



### **Transfer of Evaporative Cooled Structure Technology to Madhya Pradesh Warehousing and Logistics Corporation, Government of Madhya Pradesh**

The 5-7 tonne capacity evaporatively cooled storage structure designed and developed at CIPHET is a low cost short term low temperature storage solution for horticultural crops was formally transferred/licensed to M/S. M.P. Warehousing and Logistics Corporation, Government of Madhya Pradesh. A set of construction drawings was handed over to Mr. M.M. Nagar, Secretary of this organization and MOU was exchanged. They are planning to develop Indore as export hub for horticultural produce and these units will be established at their collection centers.



The technology for construction of Evaporative Cooled room was licensed to M/S. M.P. Warehousing and Logistics Corporation, Government of Madhya Pradesh on 18-09-2008.

## **CIPHET Offers a Specially Designed Training on Production and Processing of Fruits and Vegetables**

A specially designed paid (Rs. 20,000 per participant) Training on Production and processing of fruits and vegetables during September 22 to October 02 was organized for the staff of KVK, to implement the NAIP sponsored project on sustainable livelihood in the disadvantaged district of Nandurbar in Maharashtra. Mr. R. M. Patil, Subject Matter Specialist in Horticulture from this KVK attended this training. The training was coordinated by Dr. R.K.Gupta, Head, HCP Division and Dr. D. Dhingra, Sr. Scientist from TOT Division, Ludhiana and Dr. Rajbir Singh, Sr. Scientist, HCP Division, Abohar were co-coordinators. The content of the training included post harvest management of fruits and vegetables, modern techniques of poly house production of horticultural crops Role of bio-degradable plastics in vegetable production, organic farming of horticultural crops, orchard management practices for production of quality guava and its value addition, production techniques of quality exotic vegetables cultivation, harvesting and maturity indices of horticultural crops, shrink packaging of selected fruits and vegetables, processing of onion, ginger, garlic, minimal processing and packaging of leafy vegetables, etc. Besides many field visits were arranged at Abohar namely to farmers orchards, organic manure production plant at Fazilka, Punjab Agro Juice Limited, Abohar. At Ludhiana Mr. R. M. Patil, trainee visited Field Fresh Agri Centre of Excellence, Ladhawal, Punjab set up by Bharti Group of Industries and to B.K. Agro Soya Products and PAU orchards at Ludhiana.



Er. R. M. Patil visiting fruits orchard at Abohar during the training



Mr. R M Patil with the officials of Field Fresh Agri Centre of Excellence, Ladhawal inspecting capsicum crop under glass house



Valedictory function of NAIP/KVK sponsored training on Oct 2, 2008

### **Punjab Horticultural Development Officers visit CIPHET**

Awareness meeting for showcasing the technologies developed at CIPHET for effective post harvest management of fruits and vegetables was organized for a group of 28 Horticultural Development officers of Punjab on Sept 24, 2008. The programme included a presentation on activities of CIPHET followed by demonstrations and visit to the laboratories. The participants were accompanied by Vishal Khullar, PAMETI, Ludhiana and Dr Chandrashekhar, MANAGE, Hyderabad.

### **Entrepreneurship Development Programme on Post Harvest Technology for Production Catchments for Bihar Farmers**

An entrepreneurship development programme on 'Post Harvest Technology for Production Catchments' was organized during September 3-9, 2008 for 15 farmers/entrepreneurs from Bihar. The programme was sponsored by ATMA, Katihar. The lectures and practicals on various unit operations involved in post harvest technology of fruits and vegetables along with preparation of project profiles was covered during this programme. The programme was coordinated by Dr D. Dhingra Senior Scientist, CIPHET, Ludhiana.



## **Training programme on Soybean Processing**

A group of farmers is planning to establish soy products manufacturing units where the products will be sold jointly under one banner/brand. This approach will help cluster development of agro processing industries so that they can implement food safety and quality concerns more effectively and market their produce more effectively under one brand by pulling up the resources required for advertisement and promotion. To help them to develop the skill in the production of good quality soy products and familiarise them with the operating parameters on the commercial scale processing unit a three day paid training programme on Soybean Processing was organized at CIPHET, Ludhiana during September 24-26, 2008. Eight participants attended the programme. Theory and practicals on processing of soybean into various value added products such as soymilk, tofu, full fat soyflour etc were covered. The hands on training on operating the soymilk plant were imparted during the programme.



## **Awareness cum Entrepreneurship Development Camp in the village**

An entrepreneurship development cum awareness programme was organized at village Barnhara, Distt Ludhiana on 06.09.2008. Sh Harish Rai Dhanda, Hon'ble Chief Parliamentary Secretary, Punjab Govt. & Sh. Manpreet Singh Iyali, Hon'ble Chairman, Zila Parishad were the Chief Guest and Guest of Honour, respectively. Sh Darshan Singh Shivalik MLA, Dakha was also present on the occasion. On this occasion CIPHET honoured two of our entrepreneurs Mrs Rajinder Kaur Grewal and Mr Devinder Singh Sahota. They also shared their experience with upcoming entrepreneurs. The activities of CIPHET were highlighted to the dignitaries and upcoming entrepreneurs assembled on this occasion. The TOT division had coordinated this programme.



Felicitation of successful micro-entrepreneurs by Sh Harish Rai Dhanda, Chief Parliamentary Secretary, Punjab



Entrepreneurship development cum awareness programme by CIPHET at village Barnhara near Ludhiana

## **CIPHET get NAIP sub-project on Value Chain for Vegetables as Cooperating Centre**

CIPHET, Ludhiana is a consortium partner in another NAIP sub-project “Value chain for fresh vegetables through improved hybrid seed production” with Department of Vegetable Science, IARI, New Delhi as the consortium leader under component 2 submitted under the third call. The project has total seven partners, including two private sector partners engaged in the area of seed production and post harvest transportation and marketing of vegetables. The project envisages production, processing, handling, packaging, pre-cooling, storage, transportation and marketing of hybrid seeds of six selected vegetables such as cauliflower, cabbage, bittergourd, carrot, chili and brinjal. The quality seed will be produced on selected farmer’s fields that would be utilized by other consortium partners for quality vegetable production. The vegetables so produced would be scientifically handled, pre-packaged, stored, transported and marketed. CIPHET has been assigned the role for development of on-farm processing, pre-packaging, pre-cooling and storage facilities of the vegetables produced from the hybrid seeds. The tentative cost of the project for the component at CIPHET is Rs. 1.00 crore and Dr. D. R. Rai is a CCPI of the project.

सीफेट ने भारतीय प्राकृतिक राल एवं गोंद संस्थान राची द्वारा आयोजित राष्ट्रीय हिन्दी संगोष्ठी में भाग लिया।

यह संगोष्ठी संस्थान के 85वें स्थापना दिवस के उपलक्ष्य में राष्ट्रीय परिपेक्ष्य में जल संरक्षण की स्थिति एवं कृषि में इसके महत्व विषय पर 19.20 सितम्बर 2008 को आयोजित की गई थी। इस दो दिवसीय संगोष्ठी का उदघाटन डा. बंगाली बाबू मुख्य निदेशक की अध्यक्षता में मुख्य अतिथि डा. ए. के. सिंह, उप महानिदेशक, प्रा. सं. प्र. (भा.कृ.अ.प.) एवं सह अतिथि डा. अश्वनी कुमार, निदेशक, पू. ज. प्रौ. के., भुवनेश्वर के स्वागत एवं दीप प्रज्वलित के साथ प्रारम्भ हुआ। मुख्य अतिथि द्वारा जल प्रबंधन का द्वितीय हरित क्रांति में महत्व पर व्याख्यान भी दिया गया। इस संगोष्ठी में तीन तकनीकी सत्रों का आयोजन किया गया जिसमें प्रथम सत्र का विषय "नई तकनीकों के प्रयोग से कृषि कार्य में जल प्रबंधन", द्वितीय सत्र का विषय "भूगर्भ जल की स्थिति एवं पेय जल संकट" एवं तृतीय सत्र का विषय "वर्षा जल का संचयन एवं प्रबंधन" था। इस संगोष्ठी के तीनों सत्रों के दौरान कुल पन्द्रह आलेख पढ़े गये। सत्र का समापन डा. प्रीतम चंदा, सहायक महानिदेशक (भा.कृ.अ.प.) की अध्यक्षता एवं डा. बंगाली बाबू की सह अध्यक्षता में हुआ। सीफेट की ओर से श्री मुकुन्द नारायण टी. 4 द्वारा सत्र दो में राष्ट्रीय परिपेक्ष्य में भूमिगत जल संस्थान का स्वरूप एवं संभावनाओं पर आलेख पढ़ा गया।

## हिन्दी पखवाड़े का आयोजन

विगत वर्षों की भांति इस वर्ष भी संस्थान में हिन्दी पखवाड़े का आयोजन 14 से 28 सितम्बर, 2008 तक सीफेट लुधियाना एवं अबोहर में किया गया। हिन्दी पखवाड़े के दौरान कम्प्यूटर से हिन्दी टंकण, तत्काल भाषण, हिन्दी अनुवाद, एक दिवसीय पोस्टर पत्र प्रदर्शन, वाद विवाद, प्रार्थना पत्र, वैज्ञानिक संगोष्ठी, निबन्ध लेखन, टिप्पण लेखन एवं हिन्दी में अधिक कार्य करने की प्रतियोगिता का आयोजन किया गया, संस्थान के अधिकारियों एवं कर्मचारियों ने हिन्दी भाषा के प्रति अपना उत्साह दिखाते हुए इन प्रतियोगिताओं में बढ़चढ़ कर भाग लिया।



fglñh i [kokMs dk vk; kst u , I hQV vckg j



fglñh i [kokMs dk vk; kst u, I hQV yf/k; kuk



## Technology of the month

### Mustard extract as bio-insecticide

CIPHET has developed a technology for preparing bio-insecticide from Mustard seeds. Mustard seeds contain allylisothiocyanate, which has insecticidal. The bitter taste and pungency of mustard oil is due to the aromatic form of this chemical. This compound can be separated and used as bio-insecticide. The allylisothiocyanate is extracted from mustard seeds. This yellow colour liquid contains waxy compounds alongwith aliphatic form of allylisothiocyanate. The trials have shown that this liquid bio-agent extracted from mustard seeds can be used effectively as insecticide. M/s Indco Hightech Agro Rural D.W.W.S. has paid Rs. 60,000/-, and obtained license from CIPHET on non-exclusive basis to manufacture mustard based bio-insecticide. Impressed with the results, other companies are also coming forward to obtain the license for this technology. It is expected that the mustard based bio-insecticide will go a long way in replacing inorganic chemical insecticides. The equipment required for production of this extract are mustard grinder, bio reactor and decantor. The other products obtained during the process are mustard paste and mustard husk which can also be used for production of other value added products.



## Joining



Dr. S. N. Bhowmik, joined CIPHET Ludhiana on 6.9.2008 as Sr. Scientist (Microbiology). He has obtained his BSc (Ag) and MSc(Ag) degrees from MPKV Rahuri and PhD from IARI in year 2000. He has worked on isolation and characterization of acetobacter diazotrophicus strains and maximization of vesicular - arbuscular mycorrhiza (VAM) fungal spore multiplication. He also has experience on Oyster mushroom cultivation and production of biofertilizer in addition to work experience on state fermentation of agricultural wastes for biomethanation and biohardening of in vitro raised grape plantlets using VAM fungi for enhanced ex vitro survival.

## Obituary

### **Dr. O.D. Wanjari, Head, AS & EC Division passed away on September 18, 2008**



Dr.O.D. Wanjari was born on 3<sup>rd</sup> May 1951. He had completed his graduation from College of Ag. Engineering, Akola. He had obtained his higher degrees of M Tech and PhD from IIT Kharagpur. He had also obtained advanced training in West Germany, East Germany, Denmark and U.S.A. He was Honorary DAAD Advisor for the period 2006-2009. Dr. Wanjari who was selected as Scientist S-1 in 1976 batch ARS, had also served IARI New Delhi and CIAE Bhopal before joining CIPHET Ludhiana. He served CIPHET right from its inception in 1989. At CIPHET Ludhiana he served in various capacities like project Coordinator, AICRP (APA), Head Food Grains and Oilseeds Processing Division, Head Agricultural Structure and Environmental Control Division and also as Acting Director, CIPHET from Oct 2005 to June 2006. We all remember Dr. Wanjari as a very soft spoken and friendly gentleman, always willing to help others. He is survived by his wife and two sons. We the CIPHET family prays God to give Peace and Tranquility the departed soul.

## Publications of the month



Quarterly Newsletter

Hindi Magazine

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