

Training Workshop on Post-Harvest Technology and Cold Chain Management

20-22 March, 2012

Amity University, a centre of excellence in Uttar Pradesh, India, and the Centre of Underutilised Crops (CUC) at the University of Southampton are jointly offering a three day (March 20-22, 2012) research training workshop funded by the Leverhulme Trust. The workshop is focusing on cutting edge research and innovation under the project “**International network on preserving safety and nutrition of indigenous fruits and their derivatives**”. The training programme emphasises interdisciplinary and multidimensional approaches in agro-processing which include scientific creativity, technological innovation, and commercial entrepreneurship.

Workshop objectives:

- To provide training in the latest techniques in post-harvest technology and cold chain management of indigenous fruit and their products, which help to maintain nutritional content.
- To strengthen and extend the existing network. This will be achieved in two ways:
 - By participating in the workshop, network partners will become familiar with each other’s capacities and special interests in the field of post-harvest technology and cold chain management.
 - By including new individuals from partner institutions and from India, the network will be extended.
- To provide an opportunity for partners to identify research gaps in the area of post-harvest technology and cold chain management of indigenous fruit.
- To enable partners to agree on promising research areas and initiate research proposals in in the area of post-harvest technology and cold chain management of indigenous fruit.

The workshop will comprise a mixture of presentation sessions, class-room training and laboratory work in which the participants can gain hands-on experience. It will also include field studies/industrial visits and interactions with eminently successful persons in the respective areas. Each participant will be provided a manual/handbook related to the areas of training.

Workshop participants:

The workshop is targeted at quality control staff in small and medium-sized enterprises and the researchers and government staff working with them. It is anticipated that each network partner will be represented by at least one participant, possibly more if the travel & subsistence budget allows. Additional participants representing a range of potential partners (government, NGO, private sector, research) will be invited from India.

Workshop location:

The workshop will take place at Amity University, Noida adjacent to Delhi. The full address is: Amity University, Uttar Pradesh, Sector-125, Expressway, Noida, (UP), India.

Workshop accommodation and fees:

Accommodation will be provided for all international participants on the Amity campus.

For network partners, the project will cover the costs of at least one participant per partner institution. Travel costs to Delhi/Noida will be reimbursed fully.

There are additional places for self-funded participants, for whom costs are £60 per day (to cover training materials, accommodation, coffee/tea, lunch and evening meal as well as local travel during the workshop). These fees would need to be paid on arrival. Self-funded participants will need to cover their own travel costs to Delhi/Noida.

Further Information about Amity University

Amity University Uttar Pradesh (AUUP) is a multi-disciplinary teaching University with a strong base in Post Harvest Technology & Cold Chain Management. It was established under UP State Act 11 of 2005. Sponsored by Ritnand Balved Education Foundation (RBEF), AUUP is registered as a non-profit making organisation under Society's Act XXI of 1860. AUUP is also recognised by the University Grants Commission (UGC) under section 2 (f) of UGC Act of 1956. The Department of Scientific and Industrial Research, Govt. of India, recognises AUUP as a Scientific and Industrial Research Organization (SIRO). www.amity.edu

Amity International Centre for Post Harvest Technology & Cold Chain Management has been established with the aim to develop scientific and technical manpower in the above areas. International experts from Post-harvest Technology, Research and Information Centre, University of California, Davis, World Food Logistics Organisation (WFLO) and Global Cold-Chain Alliance (GCCA) have participated in the activities of this Centre as resource persons in various workshops and collaborative research projects and are continuously guiding and advising the activities of the Centre. Through various workshops/training programmes, international funded research projects and academic programmes in progress, the Centre has fully demonstrated its capabilities of handling multi-faceted projects in these areas with excellence.

Amity University Uttar Pradesh
Training –Workshop on
“Post-Harvest Technology & Cold Chain Management”
March 20 – 22, 2012
Technical Programme

Day 01 : March 20, 2012 - Tuesday

Time	Session /Activity Description	Speaker(s)
9 .00 – 10.00 a.m.	Registration & Introduction of Resource Persons and Participants (F-3 MDP Room) Presentation on Amity University	Maj. Gen. R.K. Dhawan
Lecture Session : International Speakers : F-3 Seminar Hall		
10:00-10:05 a.m.	Welcome Address	Dr. Sunil Saran
10.05-10.15 a.m.	Address by : Dr. Kate Schreckenber, Coordinator, CUC	Through Video link
10:15-10:30 a.m.	Use of lactoperoxidase for post-harvest treatment: case of mangoes.	Dr Max Reynes France
10:30-10:45 a. m.	Post-harvest technologies of indigenous fruits of Bangladesh: constraints and opportunities.	Dr Modan Gopal Saha Bangladesh
10:45-11:00 a.m.	Present status, issues and future trends in fruit and vegetable handling, distribution and marketing in Sri Lanka.	Prof. DAN Dharmasena Sri Lanka
11:00-11:15 a.m.	The utilization of Cashew apple in Vietnam	Ms. Duong Thi Ngoc Diep, Vietnam
11:15-11:30 a.m.	Vote of Thanks	Dr. Susanta K Roy
11.30 – 12.00 p.m.	Tea/Snack break	
Lecture Session : Post Harvest Technology : AIFT Lecture Theatre – I-1 Block Room # 408		
12.00 – 12.45 p.m.	Influence of post-harvest operations, packaging and storage on the quality of fruits	Dr. Susanta K Roy
Training /Demonstration : Post Harvest Technology : AIFT Laboratory- I-1 Block Room # 404		
12.45 - 1.30 p.m.	(i) Assessment of Physiological change and loss of quality - Physiological loss in weight (PLW %) and Quality evaluation: (a) Texture (Firmness /softness etc.) (b) Total Soluble solids (TSS) (c) pH (Acidity or alkalinity) (d) Sensory/organoleptic evaluation (Colour, flavour and texture) (e) Temperature (f) Relative humidity	Dr. Susanta K. Roy Dr. Neeru Dubey Dr. Shailendra Dwivedi (Contd.. 3.00 –3:45 p.m.)
1.30 – 2.15 p.m.	Lunch	
Lecture Session : Post Harvest Technology : AIFT Lecture Theatre–I-1 Block Room # 408		
2.15 – 3:00 p.m.	Different methods of processing, preparation of processed products and minimal processing of fruits.	Dr. Susanta K. Roy
Training /Demonstration: Post Harvest Technology. AIFT Lab I-1 Block Room # 404		
3:00-3:45 p. m.	(ii) Packaging and Storage : Effect of different temperatures with and without packaging on quality of fruits in different conditions Room temperature, Refrigerator temperature, Freezing condition in ice, ZECC Temperature	Dr. Susanta K. Roy Dr. Neeru Dubey Dr. Shailendra Dwivedi
3.45 – 4.00 p.m.	Tea break	
Training / Demonstration : Post Harvest Technology : AIFT Laboratory I-1 Block Room # 404		
4.00 – 5.30 p.m.	(i) Low Cost Techniques of Storage: Construction and operation of Zero Energy Cool Chamber (ii) Demonstration of different packaging and cushioning materials used in fresh fruits, Rigid containers, Flexible packaging, Crate liner, Wrapping in cling film (iii) Extraction of juice and pulp and minimal processing	Dr. Susanta K. Roy Dr. Neeru Dubey Dr. Shailendra Dwivedi

Day 02: March 21, 2012–Wednesday: Field Trip

Time	Session /Activity Description	Speaker(s)
Training /Demonstration : Cold Chain Management (field visit)		
9.30-1:00p.m.	Visit to Fresh & Healthy Enterprise Ltd. CONCOR India, Govt. of India Enterprise.	Enterprise Experts
1.00 – 2.00 p.m.	Lunch	
Training /Demonstration : Cold Chain Management (field visit)		
2.00 – 5.30 p.m.	Mother Dairy Fruit and Vegetable Pvt. Ltd. An enterprise of National Dairy Development Board, Govt. Of India	Enterprise Experts
6.30 – 7.30 p.m.	Session for partners only	Kate Schreckenber g and Nazmul Haq by Video link

Day 03: March 22, 2012–Thursday

Time	Session /Activity Description	Speaker(s)
Lecture Session : Biotechnology : F-3 Seminar Hall		
9:00-10:00 a.m.	Biotechnological approaches in post-harvest management - overview	Dr. K. C. Upadhyay
Panel Discussion : Post Harvest Technology : F-3 Seminar Hall		
10.00 – 11.30 a.m.	Panellists: International: Dr. Max Reynes, Md.Nazrul Islam, Ms. Duong Thi Ngoc Diep and Mr. Quang Hong Luong <ul style="list-style-type: none"> • Dr. P.L. Kaul, Managing Director, Mariental India Pvt. Ltd. • Mr. Sagar Kurade, Director, Food Consultants Pvt. Ltd • Dr. CharanjitKaur, Principle Scientist, Division of Post-Harvest Technology, IARI • Dr. D. S. Rathore, Former Vice Chancellor, HPKV, Palampur 	Chairman/Moderator Mr. GokulPatnaik Chairman, Global AgriSystem
11.30 – 12.00 p.m.	<i>Tea Break</i>	
Panel Discussion : Cold Chain Management : F-3 Seminar Hall		
12.00 – 1.30 p.m.	Panellists: International : Dr. Max Reynes & Prof. DAN Dharmasena <ul style="list-style-type: none"> • Mr. N. K. Jawa, CEO, Fresh & Healthy Enterprises • Mr.Sanjay Gupta, Executive Director, Infra Cool • Mr. K. K. Mitra, Vice President, Llyod Insulations (I) Ltd. • Mr. S. Kankan, Advisor Horticulture Business DevBhumi Cold Chain Ltd. 	Chairman/Moderator Mr. P.K. Swain, Director, Department of Agriculture & Cooperative, Ministry of Agriculture, Krishi Bhawan
2.00 – 3.00 p.m.	Lunch	
Feedback / evaluation of Training /Demonstration F-3 MDP Room		
3.00 – 4.00 p.m.	Feedback form from the Participants	
4.00 – 5.30 p.m.	Valedictory function (to be Chaired by Dr. Ashok K. Chauhan, Founder President, Amity Universities) (Distribution of Certificate etc.)	