



Tamil Nadu Agricultural University
O/o the Public Relations Officer
Coimbatore – 641 003

Dr. Venkata Pirabu, Ph.D.,
Public Relations Officer &
Professor (Agrl. Extension)
Mobile: 94890 56730

Phone: 0422 - 6611302
Fax: 0422 – 2431821
E-mail: pro@tnau.ac.in

To
The Editor,

Date: 28-7-2014

Sir,

I request that the following matter may kindly be published in your esteemed daily:

Canada – India Research Partnership Yielded Technology for Mango

The International Development Research Center (IDRC), Canada, and Department of Foreign Affairs, Trade and Development (DFATD), Government of Canada, has jointly granted a research project on “Enhanced Preservation of Mangoes in South Asia” under the Canadian International Food Security Research Fund (CIFSRF) to the Tamil Nadu Agricultural University (TNAU), Coimbatore involving scientists from University of Guelph, Canada, and Industrial Technology Institute, Colombo, and Myrada, Erode, with a total budget outlay of Rs. 12.5 crores. The project period was 2.5 years which comes to closure by August 2014 and the Dissemination Workshop was designed to deliver the technologies developed. The prime focus of the project is to develop a technology that can minimize post-harvest losses in mango orchards while enhancing the availability of fruits thereby ensuring nutritional security.

The Department of Nano Science & Technology, Directorate of Natural Resource Management of this university organized the Dissemination Workshop on July 15, 2014 in one of the major mango growing domains in Theni.

Dr. K.S. Palanisamy IAS, Theni District Collector delivered the inaugural address. In his inaugural address, he emphasized the significance of minimizing the post harvest losses of fruits in order to augment the availability of fruits to ensure nutritional security to women and children in rural India.

Dr. R. Rabindran, Registrar, TNAU presided over the Dissemination Workshop on July 15, 2014 and he narrated the importance of managing post harvest diseases in mango that facilitates enhanced preservation of fruits.

Dr. Jayasankar Subramanian, Professor from University of Guelph, Canada, the Coordinator of the international project provided the overview of the research program, achievements made in the project and future line of work. He indicated that the project has come up with a simple “Hexanal Technology” to extend the shelf-life of mango fruits in the orchards as well during the storage. Canadian Professor Gopi Paliyath the inventor of a biomolecule “Hexanal” explained the mechanisms involved in the fruit retention and shelf-life extension. Leading Mango Growers from Krishnagiri, Theni and Districts will offer their feedback on the performance of the technology.

Dr. V.P. Duraisami, Special Officer, Directorate of Natural Resource Management (DNRM) welcomed the gathering, Dr. K.S. Subramanian, Professor & Principal Investigator, Department of Nano Science & Technology proposed a formal vote of thanks.

Recently, University of Guelph's researchers have shown that hexanal, a safe chemical compound can be successfully used to enhance the shelf life and quality of temperate fruits and vegetables. The TNAU research team conducted experiments in three major mango growing domains in Tamil Nadu namely Krishnagiri, Theni and Kanyakumari. Our data have clearly demonstrated that pre-harvest spray of hexanal formulation at 15 and 30 days prior to harvest retained the fruits in the trees itself for about three weeks and further shelf-life extension for another three weeks during storage or transport. This helps the mango growers to gain additional income due to the minimal post-harvest losses besides lucrative price for their produce. Through hexanal spray is beneficial, it is highly volatile and therefore needs to develop a smart delivery system.

Researchers at the Nanotechnology center of Tamil Nadu Agricultural University are developing banana fibre based nano-matrices to regulate the release of hexanal which facilitates extension of shelf-life of fruits during the storage and transport. The Industrial Technology Institute (ITI) is an important organization in Sri Lanka that is known for their input in post harvest technology. They have developed a patented plant based bio-wax with promising results in some of the tropical fruits and this technology would also be used in this project. In order to provide the mango growers with a continuous source of educational materials and assist their transition to new methods, third party organizations such as MYRADA in India and Vidatha and Sadaharitha fruit

farms in Sri Lanka were involved with their respective project leads and the social scientists had assessed the social impact of the introduction of the new technology.

The project outcomes would certainly ensure extended storage periods and marketing window for fruits, enhanced economic returns to the growers and increased nutritional security that ultimately result in improvement in rural livelihood.

Public Relations Officer

