

**IDRC Project # 107847 (Enhanced Preservation of Fruits Using Nanotechnology)  
Dissemination at Project sites.**

No	Site/team	Date	Event	# Farmers & others attended	Talks Presented/Handouts given	Comments/feedback by farmers and policy makers
1	Canada/UG	24 <sup>th</sup> November 2017	Project Dissemination in Niagara Peninsula, ON	Farmers, students, stake holders, policy makers  50	Three talks with project outcomes Ten things about Hexanal pamphlet	Suggestions given to fast track the commercialization of the product in US and Canada Positive feedback by apple grower Significant progress in regulatory clearance after the meeting and the license Smart Harvest is taking care of that.
2	Kenya/UoN	5 <sup>th</sup> - 9 <sup>th</sup> February 2018	Project Dissemination Workshop, Meru and Machakos county	Farmers, students, stake holders, policy makers  500	Briefing to Agricultural CEC  Interactive workshop involving farmers, stakeholders from KALRO, representatives from KEPHIS  Team met with Governor of Meru County, Hon. Kiraitu Murungi and the CEC Agriculture in Meru County	Agricultural County Executive Chief (CEC) of Machakos county promised the technology fully registered and made available the farmers. Government support to adopt and scaling up the hexanal technologies were discussed  Availability was addressed by Mr. Erick, from KEPHIS which is the government mandated body responsible for authorization of new compounds and technologies. He assured the farmers that they were fully aware of the technology from its inception, and have monitored and verified that the technology is safe to use. He stated that they currently fulfilling all the government requirement to see Hexanal readily available in the local agrovets ASAP. He encouraged the farmers to consider safer technologies like the use of Hexanal to facilitate smooth trade of their produce both locally and internationally. Farmer narrated with much confidence and joy how the use of Hexanal for his papaya farm saved him from the exploitation of middlemen and resulted into a significant increment of his Income. The passionate support and corporation of farmers was recognized with a certificate of appreciation
3	Sri Lanka/ITI	21 December 2017  8 <sup>th</sup> February 2018	Awareness Program@ Rajarata Ellawala Farms, Galkiriyagama, Dambulla  Awareness Program@Jaffna, Nirveli Banana Producers and processors Association.	500 small holder farmers  45	EFF and Hexanal incorporated Bio wax were discussed to farmers. Pamphlets on EFF, Biowax and HICM were given Members of the association were briefed on the purpose of producing the banana fibre based fruit wrap.	Participants were informed that the product would be launched in the near future and would be marketed and distributed by Hayleys Agriculture (Pvt) Ltd.  The possibilities for generating income and employment Opportunities for women in this banana producing area was discussed and the need for cost effective production was explained.

4	Trinidad and Tobago/UWI	March 19-28, 2018	Final Dissemination Seminars in 8 different locations of Trinidad and Tobago at NAMDEVCO (National Agricultural Marketing and Development Corporation) farmer's market meeting  Two seminar series in Tobago @ Tobago House of Assembly (THA)	500 Farmers and Stakeholders  177 (Stake holders including farmers, agro-processors, home gardeners, agri-business cooperative members and Extension Officers	Each seminar took the form of presentations of the actual trials and a summary of the findings with respect to papaya and lime.  The use of the hexanal as a post-harvest dip was introduced to the packinghouse staff in the Division of Food Production, Forestry and Fisheries. Separate special presentations were made to policy makers.	The farmers were more comfortable on the GRAS certified project and eagerly await the availability of the product in Trinidad and Tobago. The main advantage of the product as expressed by farmers was the extension in fruit retention time in trees.
5	Tanzania/SUA	March 22 – 23, 2018	Final dissemination meetings in Muheza region in Tanga district (Orange) and in Dar-e-salaam (Mango)	60 farmers, students, policy makers	EFF preharvest spray demo on Mangoes- Grad student Mr. Jasper EFF Post Harvest dip demo on Oranges- Grad Student Ms. Anna.	Muheza Meeting: officiated by District Agriculture Irrigation Officer (DAICO) Mr Anthony Senkoro Dar-e – salam meeting: Officiated by Chairperson of the Association of Mango Growers (AMAGRO) Mrs Fatma Riyami.  Fast track the registration of hexanal so that it can be commercially available
6	India/TNAU	March 12, 2018	A mega Pack house Workshop to disseminate EFF Dipping technology to extend shelf-life of fruits	400 farmers, stake holders, Department Officials, traders, scientists and students	Two presentations on EFF technology for fruit preservation and nanotechnologies to minimize post-harvest losses besides a live demo on dipping	Mr. Sitarasu, President of Mango Growers Association of Krishnagiri, expressed that the technology is very good for exporters. He will recommend it to additional 1500 farmers. Mr. Santhakumar explained his involvement in the project for the past five years and he finds unique advantage of the technology in fruit preservation while reducing the incidence of post-harvest diseases. Mr. Pugazhlendi, owner of packhouse elucidated how this technology is powerful in minimizing losses of fruits in pack houses where huge quantities of fruits are being assembled and exported to various countries.
		March 15, 2018	Final Dissemination Workshop for the GAC-IDRC Project	200 Farmers, students, scientists besides Ms. Jennifer Daubeney, Consul General of Canada, Dr. Jay Subramanian, Overall PI, Mr. Terence Park, Smart Harvest Agri, Canada	There were three presentations. Dr. Jay Subramanian gave a overall achievements of the project. Dr. K.S. Subramanian narrated the technologies developed, patents filed, publications made and ways forward beyond project period	Mr. Arun Nagarajan, President of Tamil Nadu Fruit Growers Association offered his feedback on the EFF technology. Ms. Jennifer Daubeney, Consul General of Canada, offered her felicitations and expressed her interest to support to take forward the technologies to the next phase. Dr. K. Ramasamy, Vice Chancellor of TNAU and Mr. Terence Park, Smart Harvest Agri, Canada, signed the MOU that enables production and distribution of EFF

The following handouts and videos were shared during the dissemination events

1. EFF Spray ITI (Annex 20)
2. Bio Wax (Annex 21)
3. Hexanal Incorporated Composite Material (HICM) (Annex 22)
4. 10 things about Hexanal: : <https://www.uoguelph.ca/research/discover-our-research/publications/10-things-to-know>
5. Overall view of the project: [https://youtu.be/KOMMXoiT\\_ZQ](https://youtu.be/KOMMXoiT_ZQ)
6. 3MT National Winner Video: <https://www.youtube.com/watch?v=TyibZdxFBdW>
7. Project impact in Trinidad and Tobago: [https://uoguelphca-my.sharepoint.com/:v:/g/personal/jsubrama\\_uoguelph\\_ca/EePV3VL5iDJDvemHQ-qNkQEB3MzH323xsHAKV\\_Bu63yS-w?e=P9AoRr](https://uoguelphca-my.sharepoint.com/:v:/g/personal/jsubrama_uoguelph_ca/EePV3VL5iDJDvemHQ-qNkQEB3MzH323xsHAKV_Bu63yS-w?e=P9AoRr)
8. Project impact in Sri Lanka: <https://drive.google.com/file/d/1IMy245cAuCMTzrJliuTJ9C8THxintJU8/view>
9. Project impact in Kenya: <https://drive.google.com/file/d/0BzLNoLD6ommbMFNJeEVXMGRDLXc/view>
10. Project impact in India: <https://www.youtube.com/watch?v=J2P-KpOJYKA>