



PEF President’s Message

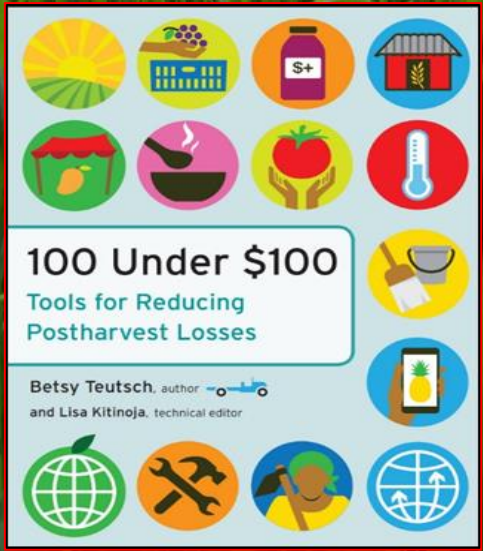
I am very excited to be able to share the news of our newest book, “100 under \$100: Tools for Reducing Postharvest Losses”! Working with the author Betsy Teutsch for these past two years has been a real pleasure for me, and I thank the PEF board for all their reviews and financial assistance. We are still looking for sponsors to assist us to print a few hundred copies for distribution to universities libraries and postharvest projects.

The “2nd All Africa Postharvest Congress and Exhibition” will be held in Addis Ababa during 17-20 September 2019, hosted by the African Union Commission. I will be presenting on postharvest education as a keynote speaker, and PEF will display postharvest training materials and promote e-learning programs in an expo booth at the congress with a few of our co-sponsors. We hope to see you there!



Dr. Lisa Kitinoja
President & Founder
kitinoja@postharvest.org

100 Under \$100: Tools for Reducing Postharvest Losses



The Postharvest Education Foundation is thrilled to announce that our new publication by author Betsy Teutsch, **100 Under \$100: Tools for Reducing Postharvest Losses** is now ready. The book is collection of 100 different tools from different corners of the world, each of which costs under 100 USD.

The book is extremely user-friendly with innovative layout and a whole set of icons to highlight aspects of each tool’s effectiveness. Each tool entry consists of direct links to external materials as well as curated additional videos and reference resources for better understanding.

The book is a free-for-download beautiful full-colour hot-linked PDF as well as an Amazon e-Book. Follow the Facebook, LinkedIn and Twitter pages for updates on release. [[Download PDF](#)] [[Buy Amazon e-book](#)]



Ceres 2030 – Sustainable Solutions to End Hunger



Ceres 2030 team met in Rome to work on postharvest interventions to reduce losses in perishables. (Left to right –Jessica Ault, Brighton Mvumi, Megan Kocher, Tanya Stathers, Alicia English, Deirdre Holcroft. Not pictured: Maximo Torero, James Oluwatoba and Lisa Kitinoja)



Ceres 2030 is a novel partnership between academic, economists and civil society to bring together economic modelling, machine learning and evidence-based synthesis to fill the major knowledge gaps in the field of agriculture and food policy. (Website: <https://ceres2030.org/>).

Dr Lisa Kitinoja and Dr Deirdre Holcroft will be working with the Ceres2030 team of global agricultural scientists to screen and evaluate thousands of published and unpublished articles on postharvest losses in low- and middle-income countries in order to identify interventions and what is working (or not working) to reduce food losses and help achieve the SDG 2 goal of zero hunger by 2030. The results will provide governments, development partners, investors, researchers and trainers with a synthesis of the evidence about investment ready PHL reduction interventions which can help create more sustainable and resilient food systems, increasing agricultural productivity and incomes of small-scale food producers.

Clean Cold Chain Development



2nd Clean Cooling Congress and Stakeholder Consultations
hosted by the UK Dept. of Business, Energy and Industrial Strategy,
the World Bank Group and University of Birmingham

London, 24-25 April 2019

How to deliver access to cooling for all ... without over-heating the planet?
Preparing a Solutions Roadmap



Agriculture for Development, 36 (2019)



Clean cold-chain development and the critical role of extension education

Lisa Kitinoja,* Vijay Yadav Tokala and Majeed Mohammed



Dr Lisa Kitinoja is the Founder and Board Chair (Oregon, USA); Vijay Yadav Tokala (Curtin University, Western Australia) and Dr Majeed Mohammed (University of the West Indies, Trinidad & Tobago) are members of the Board of Directors of The Postharvest Education Foundation, an international non-profit organisation dedicated to providing information, mentoring and training on food loss/waste reduction.

*Corresponding author: kitinoja@postharvest.org; www.postharvest.org

The UK Department of Business Energy and Industrial Strategy (BEIS), the World Bank and University of Birmingham organised '2nd Annual Sustainable Cooling Congress' in London (UK) during April 24-25, 2019, to discuss strategies to provide sustainable cooling for all those that need it. **Dr. Deirdre Holcroft** (PEF board member) attended and presented on the importance of global postharvest capacity building.

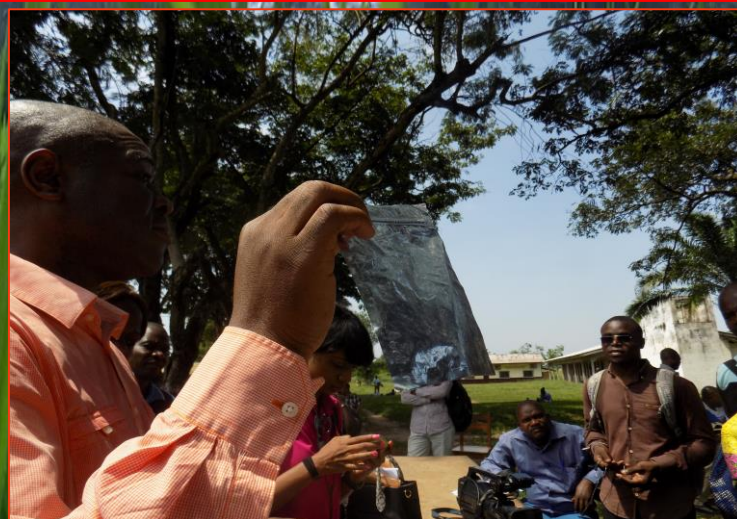
A journal article on the role of extension education on clean cold chain development was written by **Lisa, Vijay and Majeed** and published in the journal of the Tropical Agriculture Association (Vol. 36:Spring Edition 2019). [[Download article](#)]



Postharvest Training Programs



Our colleague **Mauricio Rodriguez** worked as a volunteer in Guyana, along with the Farmer-to-Farmer (F2F) program at Partners of the Americas. He has visited packinghouses, providing training and advice on improved postharvest handling for fruit and vegetables.



Albert Fosso (2017 PEF graduate, Namibia) has organised 5 workshops and provided postharvest training to 177 teachers, on a school gardening project for UNFAO in Gabon, Cameroon and the Congo (March-April-May 2019).



Karin Alborno (2016 PEF graduate, Chile), a UC Davis doctoral student in the Horticulture and Agronomy graduate group, travelled to Uganda to help farmers improve their postharvest handling practices with pineapple, passion fruit and tomatoes - during a Trellis Fund project with Ndibwami Integrated Rescue Project (NIRP) and the Horticulture Innovation Lab.

[\[Watch YouTube video\]](#)



Rwanda Postharvest Conference, 7-9 June 2019




Bertha Mjawa (PEF board member, Tanzania) and **Jane Ambuko** (2012 PEF grad, Kenya) met at a two-day Rwanda Postharvest Conference and horticulture experts meeting on 7-9 June 2019. The conference was hosted by Agribusiness Associates and the Hort Innov Lab. Bertha and Jane shared their experiences with developing PTSCs, value addition centers and aggregation centers for reducing postharvest losses.



Christine Mukantwali, Hilda Vasanthakaalam, Jane Ambuko & Rashmi Ekka (left to right) at Rwanda Postharvest Conference (Pic courtesy: [@HortInnovLab](https://twitter.com/HortInnovLab))

Rwanda's 3 new PTSCs will be supported by the government of Rwanda going forward, as the "Reducing Postharvest Losses in Rwanda Project" was completed in June 2019

PEF e-learning graduates updates...

-  **Robert Odoi** (2012 PEF grad Uganda, residing in the USA) joined the KinoSol team as training coordinator in April 2019. KinoSol (Ames, IA and Minneapolis, MN) designs low cost solar dryers and provides postharvest training and equipment to African partner organizations and self-help groups. Robert graduated with a Master of Science degree in Project Management from the University of Wisconsin, Platteville on May 10, 2019.
-  **Naman Nyabinda** (2012 PEF grad Kenya) has a new job as Senior Project Officer for Practical Action. He will be wearing a bigger hat and working with youths between the age of 25 to 35 years involved in Agribusiness both on and off farm, to develop Rural Economies and livelihoods. Naman tells us, "I will be working with youths to promote agroecology principles in agricultural systems with the aim of reducing cost, increasing yields, and producing healthy foods with limited degradation to environment."
-  **Mekbib H. Seife and Tigist Tadesse** (2012 PEF grads Ethiopia) participated in the GAIN Postharvest Loss Alliance for Nutrition (PLAN) workshop in Ethiopia on May 22, 2019. Dr. Lisa has been advising the PLAN team on their new project on the use of reusable plastic crates (RPCs) for reducing losses of tomatoes in Ethiopia.



PEF Colleagues in action...!!



Our postharvest colleagues **Drs. Hala Chahine, Amar Kaanane, El Houssin Bartali and Sreekanta Sheel** (left to right) meeting up at a UNFAO 4S loss analysis workshop in Morocco. They sent this photo with their greetings and good wishes to PEF and our e-learners!



Professor Made Utama, Udayana University and his team installing a new cold room in Bali, Indonesia. The CoolBot used in cool room was donated by PEF.

Walk-in ZECC (Evaporative Cooled Room)



DESIGN & CONSTRUCTION Features of EC Room

- Masonry room of inside size 3M x 3M x 3M
- Double wall, each wall 11.3 cm thick
- Brick should be fully cured before usage
- 11.3 cm of sand filling between double wall
- Fine river sand free from clay & organic matters should be used
- Drip system on top of sand filling
- RBC roof & CC floor
- Ventilation windows & exhaust opening

Design for a walk in size ZECC, via Indian Council of Agricultural Research (ICAR) and Central Institute of Post-Harvest Engineering & Technology (CIPHET). The cost for construction of a 9m x 9m x 9m cool room is about \$ 900 to 1000, depending on the local cost for kiln fired bricks. The design developed by CIPHET provides low cost solution to farmers for on-farm storage. It does not require electricity to operated and now these EC room are becoming popular in various parts of the country. [\[Watch YouTube Video\]](#)



Food Loss Analysis: Causes and Solutions – St. Lucia

Food and Agriculture
Organization of the
United Nations

Food loss analysis: causes and solutions

Case study on the cassava farine, tomato
and mango value chains in Saint Lucia

Dr. Majeed Mohammad (PEF Board member, West Indies) and **Dr. Kelvin Craig** have authored UNFAO's "Food loss analysis: causes and solutions – case study on the cassava farine, tomato and mango value chains in Saint Lucia". The report focusses on the critical loss points, main causes and extent of postharvest losses in the cassava, mango and tomato supply chains. The techniques employed for the loss analysis were based on the 4-S (Screening; Sampling; Survey and Synthesis) approach used by UNFAO. Food loss reduction strategies, investment program and cost: benefit analysis of proposed solutions were also discussed. [[Download](#)]

Fact Sheets: Green CHAINge – Vegetables and Fruit

The "GreenCHAINge" research project at Wageningen University & Research (WUR) in The Netherlands has published a series of Factsheets on recommended postharvest practices for fruit and vegetables. The report covered a range of practices like pre-harvest factors, temperature management in supply chain, quality control, non-destructive methods of quality assessments, disease control, reducing physiological disorders in crops like green beans, blueberries, mango, melons, papayas, strawberries, mushrooms, pears, avocados, plums and kiwifruits. [[Download](#)]



Nutritious Food Foresight: Twelve ways to invest in good food for emerging markets



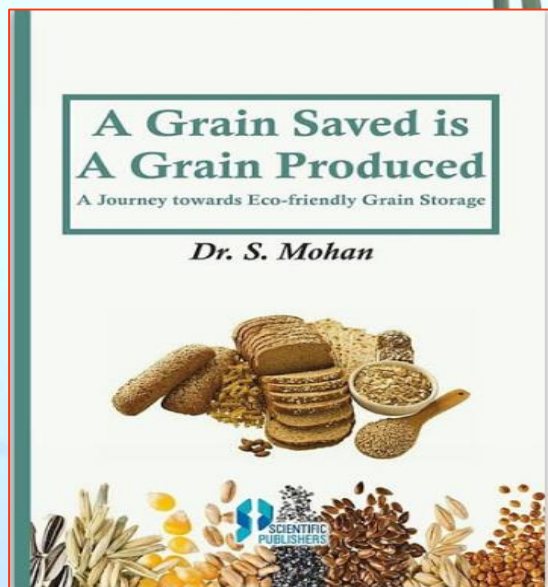
Nutritious Food Foresight:
Twelve ways to invest in good food
for emerging markets



The report was co-authored by Gurnimrat Sidhu and Chase Keenan as well as Senior Advisor, Angela R. Hansen, published by Global Knowledge Initiative (GKI) and funded by Global Alliance for Improved Nutrition (GAIN). The report was developed with the contributions of experts around the world and addresses sustainable ways to exploit new ideas and technologies to feed and nourish growing population. **Dr. Deirdre Holcroft** (PEF Board member) worked with the Delphi panel for GKI and GAIN to develop this report. [[Download](#)]



A Grain Saved is a Grain Produced – Dr S. Mohan



Dr. Mohan Sarma, Professor (Retired), Tamil Nadu Agricultural University, India has developed several low-cost tools useful for both monitoring and mass trapping of stored grain insects.

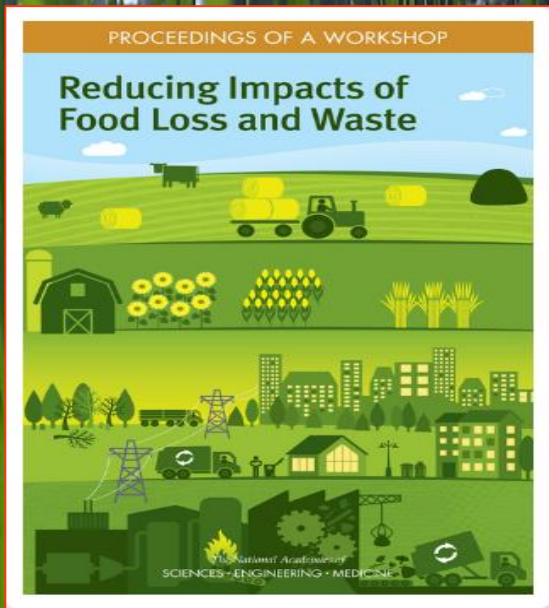
In his new book "A Grain Saved is a Grain Produced – A Journey Towards Eco-friendly Grain Storage" he has narrated his journey and lifetime quest to reduce food losses.

Website: <https://www.mohantrap.com>
[Weblink to E-book]

Reducing Impacts of Food Loss and Waste

Reducing Impacts of Food Loss and Waste (2019) – Proceedings of the "Reducing Food Loss and Waste: Workshop on Impacts" conducted by the National Academies of Sciences, Engineering, and Medicine's Science and Technology for Sustainability on October 17, 2018 held in Washington, DC.). The workshop was organized in order to examine the key challenges that arise in reducing food loss and waste throughout the supply chain and discussed potential ways to address these challenges.

[Download the full proceeding]



Evaporative Cooling for Improved Vegetable and Fruit Storage



A completed brick Zero Energy Cooling Chamber in Gatisbo, Rwanda.

Our colleagues **Gurbinder Singh Gill** and **Rashmi Ekka** of Agribusiness Associates (ABA) joined Eric Verploegen (MIT D-Lab) and conducted a study to investigate the potential of 'ZECC' and 'Clay pot coolers' for improved vegetable and fruit storage in Rwanda and Burkina Faso.

[Download the full report]



The Postharvest Education Foundation

Website: www.postharvest.org E-mail: postharvest@postharvest.org

2nd All Africa Postharvest Congress & Exhibition

Conference Details

Date: September 17-20, 2019

Location: African Union
Commission Headquarters,
Addis Ababa, Ethiopia.

[Registration Link]

[Draft program]



THE 2ND ALL AFRICA POSTHARVEST CONGRESS & EXHIBITION

Postharvest Loss Reduction and Agro-Processing: Drivers of Agricultural Transformation in Africa

The **2nd All Africa Postharvest Congress & Exhibition** is going to be hosted by the African Union (AUC). The main theme of the conference is 'Postharvest Loss Reduction and Agro-processing: Drivers of Agricultural Transformation in Africa'. The sub-themes include innovations, capacity building, private-public partnerships, youth and empowerment in postharvest loss reduction and agro-processing.

Dr. Lisa Kitinoja and Vijay Yadav Tokala will be attending the conference.

4th All Africa Horticulture Congress



Conference Details

Date: November 22-25, 2020

Location: Dakar, Senegal.

[Conference Website]

The **All Africa Horticulture Congress (AAHC)** is one of the major events of the African and global horticulture and scientific community. The event is being organized under the International Society for Horticulture and Science (ISHS), is held once in every four years in Africa.

Postharvest tool kits – Ms Fanny Ipinge



Ms Fanny Ipinge (2014 PEF e-learning graduate from Botswana), now residing in the Netherlands has recently taken on the business of making tools such as sizing rings, colour charts, and procuring tools, supplies and demo materials for PEF postharvest tool kits. For tool kit orders, please contact her via email: fannyiping@gmail.com or Telephone: +31 629620302 (The Netherlands).

**Welcome to new board member – Dr. Mohammed Wasim Siddiqui**

PEF Annual Board Meeting was held on May 11th, 2019 and a new board member, Dr. Siddiqui, has joined our team. He is an established researcher, academic, and editor in the area of postharvest biotechnology of fruits and vegetables. He is presently Assistant Professor and Scientist at Department of Food Science and Postharvest Technology, Bihar Agricultural University, Sabour, India. He is an author or co-author of >50 research articles, 25 books, >40 book chapters, and several conference papers and Chief Editor of the “Journal of Postharvest Technology”.

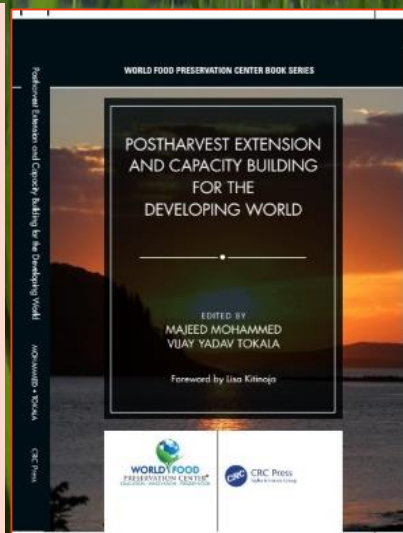
He is currently the lead PI (Nodal Officer) of a Food Development Center (at the Bihar Agricultural University, Sabour, India), a pilot project for the postharvest research, product development, and training centre. He is also an ambassador of World Food Preservation Center, USA.

Book Launch Webinar -Postharvest Extension And Capacity Building

We have successfully organised a webinar to discuss different capacity building methods, case studies and success stories mentioned in the book, while sharing some training experiences. The book "Postharvest Extension and Capacity Building for the Developing World" is a collection of recent advances in postharvest extension/outreach programs, capacity building and case studies of practical methodologies.

The PDF file of the webinar presentations can be downloaded from the PEF website: [\[Download Presentations\]](#)

The recording of the webinar is also be available on PEF YouTube channel [\[Watch Webinar recording\]](#)

**1st All Asia Postharvest Congress and Exhibition**

1st All Asia Postharvest Congress and Exhibition will be organised at Integral University, Lucknow, India in cooperation with The World Food Preservation Center® LLC from 11-13 November 2019. **Dr. Diane Barrett** and **Vijay Yadav** will be attending the conference.

The Postharvest Education Foundation _ Introduction Video




We have updated the introduction video of PEF with details of e-learning programs, training projects, success stories and future targets. Check out the updated video and other interesting postharvest related videos on [PEF YouTube Channel](#). [\[Watch the PEF Intro Video\]](#)








The Postharvest Education Foundation

Website: www.postharvest.org E-mail: postharvest@postharvest.org

Congratulations to our newest PEF graduates

-  **Robert Nshizirungu** (Rwanda) - Nature of Life Ltd, Rwanda.
-  **Dusabumuremyi Jean Claude** (Rwanda) - Assistant Lecturer at INES-Ruhengeri, Rwanda.
-  **Mudenge Ernest Kwizera** (Rwanda)- Founder & Managing Director at Rise and Farming Solutions, Rwanda.

The e-learning graduates with top grades and who received postharvest tool kits in Burkina Faso:

-  **BABINE André**
-  **OUEDRAOGO Oliviér**
-  **DRABO Oumar**
-  **OUEDRAOGO Yacouba**
-  **KY Adama Désiré**

PEF's 'Global Postharvest E-learning Program' is Free to all!

Check the website for further details and register by completing Assignment #1:

http://postharvest.org/postharvest_elearning_program1.aspx

Postharvest Queries:

Mail us at postharvest@postharvest.org any postharvest related questions you wish to be answered.

SUPPORT OUR WORK

The Postharvest Education Foundation is a 501(c)(3) non-profit public charity with aim to reduce global food losses, which are as high as up to 50%.

Donations to The Postharvest Education Foundation are used for 3 major program activities:

1. Postharvest tool kit: For e-learners from developing country who complete their training (US\$400 each).
2. Travel Support: To pay for the travel expenses to attend international postharvest training programs (air tickets, hotels, food, local transport costs) (Estimated as \$1500-\$2000 per e-learner).
3. Kader Awards: Awarded annually in honour of Dr Adel A. Kader to PEF Alumni, who show greatest impact in providing trainings for clientele at different levels (\$500).

Kindly check our website (<http://www.postharvest.org/donate.aspx>) for other alternate ways to donate.

Thanks in advance for your tax-deductible donation, which will be used to train young horticultural professionals via low cost internet based programs, with reading assignments, fieldwork on improved practices for postharvest handling, storage, processing and marketing.

Email us at newsletter@postharvest.org to subscribe to the PEF newsletter.

Contact Us:

The Postharvest Education Foundation
PO Box 38, La Pine, Oregon 97739 USA
Office telephone: 1 (916) 708 7218
Email: postharvest@postharvest.org
Website: www.postharvest.org

Connect with us on:

