



# Periodic Report

**The ADM Institute's Periodic Reports provide updates on recent and upcoming activities, reports, events and accomplishments.**

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## Engaging Students on PHL: Discussing Postharvest Loss & Food Security at Int'l Coffee Hour

The ADM Institute expanded its undergraduate student outreach during the 2013 spring semester beyond its traditional business and engineering scope. Director Steve Sonka was invited by the Global Studies program in the College of Liberal Arts and Sciences to participate in an International Coffee Hour discussion series. The series, aiming to bring students and faculty together over current topics in global affairs,

featured Director Sonka as the guest speaker for the session titled, "Feeding 9 Billion: The Impact of Food Loss and Food Waste". Despite rainy weather and the busy time of the academic season, dozens of students attended and participated in the discussion. Director Sonka framed the issue within a historical context of global food security challenges, painting a picture of optimism when

comparing the potential for loss reduction with late 20<sup>th</sup> century problems of food scarcity. Students wanted to know more on how postharvest loss affects broader concerns, such as national security and environmental sustainability. The institute was glad to share insights and perspectives on how university research contributes to international problem-solving. ¶



*Director Sonka talks with undergraduate students about postharvest loss at a coffee hour event organized by the Global Studies Leaders of the Global Studies Program in the College of Liberal Arts and Sciences.*

# Social Media, “Ambassador” of the ADM Institute

Global problems such as postharvest loss (PHL) are discussed and debated all over the world. From institutions to individuals, government agencies to private businesses, and everywhere in between, there are people who are working to prevent and reduce loss. The ADM Institute embraces this diversity in perspective and seeks to engage in broader conversations to raise awareness and build connections. The power of social media makes interactive communication across the globe possible, and the institute has created and updated its various online platforms over the past months.

[Twitter](#) is used with greater frequency to share info and announce updates, as well as to virtually participate in conferences and forums. [Facebook](#) helps the institute build awareness among its

various audiences, including students, professionals, and organizations.

On UNEP World Environment Day on June 5<sup>th</sup>, the institute used social media platforms to support its awareness campaign in support of this year’s theme, “Think.Eat.Save.” Facts and statistics on PHL were shared, and an institute-original [infographic](#) encouraging people to “Eat 2 Save” was circulated. Visuals greatly support the institute’s work as an information hub, and in May the institute created a [Flickr](#) account containing high-quality photographs of staff and student field visits.

The institute plans to further increase its virtual interactivity, and will launch a blog in coming months which will feature expert opinion pieces and real time analyses of current PHL issues. ¶



*The institute contributed further to discussions happening during two conferences in Washington, D.C., by following event hashtags and video live streams.*

The infographic is titled "EAT 2 SAVE! Reduce loss and help save the environment" and "Global Postharvest Loss Percentages". It features a central globe with arrows pointing to five categories of food loss:
 

- 29% of staples:** Rotate pantry goods to avoid 'hidden' or forgotten items; Donate large quantities of unused food to food pantries and soup kitchens.
- 42% of fruits & veggies:** Repurpose vegetable trimmings as bases for soups, sauces, and stocks; Make smoothies and juices with assorted fruits and vegetables.
- 19% of meat:** Keep track of expiration dates to avoid spoilage or freezer burn; Store immediately to increase shelf life.
- 30% of fish & seafood:** Learn and use proper preparation techniques to avoid prep error waste; Use leftovers to make new dishes.
- 15% of milk:** Serve in small quantities, especially for children; Prepare and freeze pastry or bread dough to use up excess.

 Below the globe, it lists "Things we can do": Shop at home first – use items from your cupboards before buying more; Make a list before going to the grocery store, and buy in quantities as needed; Order portion sizes you can finish or take home from restaurants.
   
 At the bottom right of the infographic is a Twitter post from ADM PHL Institute (@PHL\_Institute) dated June 5, 2013, promoting a WED infographic on postharvest loss and providing a link to the infographic.
   
 To the right of the infographic is a Flickr photo album grid with 12 photos showing various scenes related to agriculture and food processing, such as people working in a field, a large pile of grain, and a person using a machine in a processing facility.

*L-R, The ADM Institute used Twitter to share an original infographic in support of the UNEP World Environment Day on June 5th. This year’s theme, Think.Eat.Save., raised awareness for reducing food loss and food waste; The institute Flickr account shares high quality photos of field visits, conferences, and events. Viewers can search photos by album or by subject tags.*

# Postharvest Loss Initiatives in China

In February 2013, ADM Institute staff Steve Sonka and Grace Kenney took a trip to China to meet with governmental agencies concerned with the issues of food loss in the country. Among those visited were the ADM Beijing Office, the State Administration of Grain, the Rural Center for Research Economy, farmers in Lankao County, Henan, and the Academy of the State Administration of Grain.

The visit began with a debriefing at the ADM Beijing office, where institute staff learned of the current ADM China activities, as well as were given background information on the status of food security in China.

## State Administration of Grain (SAG)

Of major significance in the meeting with the State Administration of Grain (SAG) was their recognized need for innovation in storage for individual households as well as the issues surrounding transportation loss and “over processing.” There are 250 million farming households in China, and about half of the population is rural. A large percentage of grain storage is kept by individual households. SAG estimates that about 35 billion kilograms of grain is lost every year in China.

## The Research Center for Rural Economy (RCRE)

The Research Center for Rural Economy (RCRE) is a think-tank that writes documents for Party plans – specifically, to the Ministry of Agriculture. They can easily convert policy suggestion into national policies. RCRE lists causes of PHL in China as due to production management, economics, logistics,

storage, technology, and consumption habits. Following President Xi Jinping’s comments earlier this year on food loss and waste, leaders of the Ministry of Agriculture also made a request to ask RCRE to do follow-up research on PHL reduction. RCRE thinks that the losses mainly occur during the storage stage of individual farming houses, caused by technology and equipment constraints. RCRE has an impressive network for sampling and collecting data. Started in 1985, there are 23,000 households in 31 provinces in the system, where the sample collection points remain consistent. Crops including wheat, corn, and rice, as well as various scales at farm level, are covered in the system. Through that system, the data is able to be qualified into different farmers, crops, and scales of production. Additionally, RCRE keeps track of 1,200 leading ag-processing companies, located in all provinces.



*A Henan farmer, Director Sonka, and translator from ADM Beijing discuss on-farm losses.*

## Henan Farm Visits

A visit to rural Henan accompanied by representatives from RCRE allowed

institute staff to see the Chinese farming system in person.

Through detailed interview sessions with several farmers and processing companies, as well as a tour through the countryside, institute staff were able to see the typical dynamics of farmers in China’s major wheat producing province. In that area, the largest farm size was 8 mu, or 1.3 acres, with the majority being much smaller.

Most farmers rented machines, yet had labor issues in terms of getting help or machines at the right time. A discussion with a local processor led to the understanding that the greatest loss is between harvest and the farmer’s house.

## Academy of the State Administration of Grain (ASAG)

As the technology and research-focused arm of the State Administration of Grain, the ASAG visit was primarily focused on issues of storage and discussing ways to move storage from the farm to silos. ASAG indicated that 35 million metric tonnes of the total production is lost in postharvest stages. The current estimates indicate that on-farm storage accounts for 57% of PHL; inappropriate storage in grain companies’ facilities accounts for 21%; and processing loss accounts for 19%.

The use of warehouse receipts and hub-consolidation of farms and centers were suggested to reduce storage loss. ASAG is considering that this may be a solution at local levels, through co-ops and partnerships. ¶

# East India Postharvest Project With IRRI

Last year, the University of Illinois at Urbana-Champaign signed a Memorandum of Understanding with the International Rice Research Institute (IRRI) to further the goals of reducing postharvest losses of rice in developing countries. As part of this agreement, the ADM Institute and IRRI are embarking on a project located in Bihar and Odisha, Eastern India, focusing on drying and storage, mechanical threshing, training and demonstrations, and establishing pilot sites to test innovations and collect data. This particular approach will emphasize the importance of sustainable business models and training of farmers of technical and business learning activities. Farm-level postharvest loss assessment data on both physical and quality losses will also be measured and estimated against improved technology options, where feasible. ¶



Rice sun-drying at a processing facility near Chennai, India



Grains spill on the ground due to broken gunny sacks, Chennai, India.

## JACS 2013: “The Future of Waste”

At the beginning of March 2013, the ADM Institute provided support to the Joint Area Centers Symposium (JACS) 2013 at the University of Illinois at Urbana-Champaign, whose focus this year was on “The Future of Waste.” ADM Institute Project Coordinator Grace Kenney spoke during the roundtable discussion, “Food Loss or Food Waste?” with Janet Kalish (freegan.info, New York City), and Jonathan Bloom (investigative journalism on food waste issues in the USA). The conference attracted members of the campus and greater community and brought forward the issues facing natural resource usage, food security, more.

Additional information can be found at the conference website: <http://ilint.illinois.edu/jacs.html>. ¶



Poster of JACS Symposium 2013  
Credits: Fuggo and Illinois International

# Recent Events

To raise awareness of postharvest loss as well as enhance collaboration with other organizations, representatives of the ADM Institute participate in events concerning postharvest loss and agricultural development.

Representatives of other institutes also visit the ADM Institute and the University of Illinois to explore potential collaboration opportunities. Below is a partial listing of recent events in which representatives of the ADM Institute have participated:

## February

26-28<sup>th</sup> – Project Coordinator Grace Kenney and Director Steve Sonka visited China. They met representatives from the ADM Beijing branch, the State Administration of Grain, the Research Center for Rural Economy, and the Academy of the State Administration of Grain for potential collaboration opportunities with Chinese government entities. They also visited farm villages in Henan Province to understand the Chinese postharvest system.

## March

2<sup>nd</sup> – Project Coordinator Kenney participated in a roundtable discussion titled “Food Loss or Food Waste?” at the [Joint Area Centers Symposium \(JACS\) 2013](#) in Champaign, Illinois.

27<sup>th</sup> – Director Sonka presented at the USAID Ag Sector Council Seminar, “[Preventing Postharvest Losses from Field to Market: A Food Security Imperative](#)”.

## April

1<sup>st</sup> – The ADM Institute published its 2012 Progress Report. Raising awareness, enhancing collaboration, and harnessing research expertise are the three main themes of this year’s progress report. To read more on the institute’s accomplishments in 2012, please check the entire [2012 Progress Report](#).

10<sup>th</sup> – At the International Coffee Hour hosted by the Global Studies Leaders at the University of Illinois, Director Sonka gave a talk to students, discussing the impact of food loss and food waste on feeding the upcoming 9 billion people in the world.

24<sup>th</sup> – Director Sonka discussed the influence of precision agriculture on postharvest loss at the precision agricultural panel discussion at the [Ohio Unmanned Aircraft Systems \(UAS\) Conference 2013](#), in Dayton, Ohio.

29-30<sup>th</sup> – The FAO Global Initiative on Food Loss and Waste Reduction held a workshop on the methodology of food loss assessment and the development of a food loss reduction strategy in Rome, Italy. Director Sonka was invited to provide opinions on improving the current methodology.

## May

21<sup>st</sup> – The Chicago Council on Global Affairs hosted the [Global Food Security Symposium 2013](#) in Washington, D.C., which Director Sonka attended. The theme this year focused on “Capitalizing on the power of science, trade, and business to end hunger and poverty.”

21<sup>st</sup> – Director Sonka gave a presentation on “[Postharvest loss prevention, ICT, and innovation in measurement](#)” at the Future of Agriculture series of the Economic Research Service, U.S. Department of Agriculture in Washington, D.C. The importance of postharvest loss reduction, information on the ADM Institute, the concept of “sustainable prevention of postharvest loss”, innovation in measurement, and the potential application of ICT tools on postharvest loss prevention were discussed during the seminar.

22<sup>nd</sup> – The [2013 Annual National Policy Conference](#) was held by CropLife America in Washington, D.C. Director Sonka was on the “Feast or famine: Diagnosing the health of the global food system” panel to discuss the imperative for postharvest loss reduction in the global food system.

## June

5<sup>th</sup> – The ADM Institute held a virtual event, [Eat 2 Save](#), on its Twitter and Facebook pages as a response to the [United Nations Environment Programme World Environment Day 2013](#). An [infographic](#) on global postharvest loss percentages and tips for loss reduction was also released on World Environment Day.

11<sup>th</sup> – Alfred Schmidley, Business Model Specialist at the [International Rice Research Institute](#), visited the ADM Institute. The institute faculty affiliates introduced their research concepts and projects, as well as student classes targeting postharvest loss during the meetings. ¶

# Upcoming Events

The ADM Institute has been involved both domestically and internationally in events concerning postharvest loss and agricultural development. Below is a partial listing of upcoming events in which representatives of the ADM Institute will participate:

## July

15-16<sup>th</sup> – The Institute of Food Technologists (IFT) will host an invitation-only event, [The Power of 3: Food, Water & Energy](#), in conjunction with the 2013 IFT Annual Meeting & Food Expo in Chicago, Illinois. The ADM Institute is an organizing partner of this event.

## October

16-18<sup>th</sup> – The [2013 Borlaug Dialogue Symposium](#) will be held in Des Moines, Iowa. Biotechnology, sustainability, and climate volatility will be the three main themes this year. The institute will hold a breakfast side panel titled, “Innovation in measurement: a key to reducing food loss and waste.” The institute’s 3<sup>rd</sup> External Advisory Board meeting will also be conducted in conjunction with the symposium events.

*If there is a conference or event that should be brought to the ADM Institute’s attention, please do not hesitate to inform us.*



*An outdoor collection point for local farmer's corn in Henan, China*



*Institute staff meet with the ADM Beijing office and SAG (L-R: ADM Beijing staff Xiong Haochen and Huang JuHui, Steve Sonka, SAG representative He Yi, and Grace Kenney).*



## ADM Institute for the Prevention of Postharvest Loss

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