Friday Notes is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. Friday Notes advocates the pursuit of credible, unbiased, science-based information. Material contained in linked articles is from the original authors and does not necessarily reflect the views of CAST.

In This Issue...... Click to Read
- Presentation on Capitol Hill--P. 2
- Animal Agriculture News
- Food Science and Safety News
- Plant and Environment News
- International News
- General Interest News

Rollout on Capitol Hill
CAST publication looks at crucial food waste issues

Reducing food loss and waste is one of the key strategies to combat hunger and sustainably feed the world. This new CAST publication provides a critical overview of the issue in the United States through an objective, balanced, and data-driven approach. See page two below for more about this topic and the CAST presentations to the House and Senate. Click here to access the press release and a link to the full publication.

News and Views

Japanese-U.S. Discussions: The United States and Japan announced they will open negotiations on a bilateral trade agreement between the world’s first- and third-largest economies. Many hope this will increase market access for many agricultural goods.

U.S.-China Relationships: In another pronouncement, President Trump accused China of interfering in the U.S. midterm elections with “farm belt ads and tariffs.”

KORUS Agreement: The United States and South Korea signed off on the renegotiated U.S.-Korea Free Trade Agreement—a move that could ease certain farm sector concerns.

Blockchain Update: According to this update about blockchain technology, the concept will greatly change the way agricultural commodities are grown, traded, and processed.

High Yields and Sustainability: This report indicates that the best way to meet rising food demand while conserving biodiversity is to wring as much food as sustainably possible.
Looking at Food Loss and Waste

*Important information presented to policymakers and the public*

*Food Loss and Waste* is the fourth paper issued in the CAST series on *The Need for Agricultural Innovation to Sustainably Feed the World by 2015*. Task force chair, Dr. Zhengxia Dou (University of Pennsylvania), presented highlights and key findings of the paper in Washington, D.C., to Senate staffers in a morning briefing and to House staffers at a Lunch-n-Learn noon seminar.

[Click here for the press release and access to the full publication.](#) The [CAST website](#) includes links to the paper, and sometime on or after October 1, a video of the presentation will be available.

The *Food Loss and Waste* (FLW) publication includes four sections:

1. The magnitude of the problem is described using four major data sources at the national level, and the different scope and boundaries of these data are compared. There follows a discussion of the three fundamental resources for primary food production—land, water, and fertilizer—that are embedded in the lost and wasted food, plus other resource costs.

2. The authors discuss why FLW occurs, drawing attention to the many issues of the FLW problem regarding consumer behavior and the interacting influence of psychological,
social, cultural, and economic factors. They also describe major actions that are being taken across the nation to decrease FLW.

(3) A hard look at existing data on the quantity of food waste prevention, recovery, and recycling is taken by compiling all major sources of data that could be located, providing a reality check on how well the country is performing on lessening FLW.

(4) The authors present a critical analysis concerning three key issues: How can the United States work toward the 50% reduction goal by 2030 knowingly and confidently? What technological innovations may be game changers? What other approaches could be explored to influence consumer food behavior for the better?

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### Friday Notes News Categories


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**Animal Agriculture and Environmental News**

**Mad Mama (video):** This viral video shows a farmer trying to tag a newborn calf—the cow has other plans.

**Pelvic Organ Prolapse:** The second-leading cause of death to sows in the swine industry is leading researchers to take a scientific approach to the issue.

**Mastitis Is Moving In:** A relatively new form of mastitis is occurring more frequently and is much more difficult to control due to its resistance to antibiotics.

**Hunting Hogzilla:** Wild pigs can be damaging to crops and dangerous to humans, and this hunter takes on the big ones.

**Tracing Cattle:** The USDA has announced its traceability program goals for cattle.

**Cage-free Poultry Questions (opinion):** This podcast is part three of a look into environmental questions being asked concerning "cage-free" egg production. Also check out this CAST publication—Impact of Free-Range Poultry Production Systems on Animal Health, Human Health, Productivity, Environment, Food Safety, and Animal Welfare Issues.

**Digital Cow Herding:** For some ranchers, cattle herd management is in the palm of their hands.

**Bug in the Bellies of Bovine:** This USDA researcher made an interesting discovery in the rumen bacteria of cows that could change the way we think about their microbial makeup and nutritional needs.
Compound for Cats: A new collaboration at Kansas State University is promoting the commercial development of an anti-viral compound for a deadly cat disease.

Food Science and Safety News

Pixels to Plate (video): Technology mixes with fine dining, as 3D printers are used in an upscale restaurant.

Search for Quality Water: This microbiologist is tracking potentially harmful bacteria in North Carolina's drinking water due to Hurricane Florence. She shares post-storm threats and how to cut down on the dangers.

Not Just Animal Feed: Many see sorghum as being primarily for animal consumption, but a Texas A&M health agent says it can be a food source for humans as well.

Keeping Things Fresh: These food scientists provide simple tips for storing fruits and vegetables that will help to keep them fresh longer.

Perception and Calories: This research shows that weight-conscious adults often believe that if a "healthy" food item is presented along with one that's not, the "unhealthy" item is seen as containing fewer calories than it really has.

Changing the Strategy: Will plant-based diets push meat sectors to change their marketing strategy? This analyst says producers can respond by using market disruptions as a chance to reconnect with consumers.

Organizing Your Fridge: The Ohio State University shares several tips on how to organize your refrigerator to lessen the risk of foodborne illness.

Plant Agriculture and Environmental News
Stories from the Soil (video): An educational multimedia series is being launched to hear from farmers, land stewards, and researchers on soil health management practices and innovation from the ground level.

Before The Fire (video): Researchers are part of a collaborative project that is using unmanned aircraft to improve a Kansas smoke management plan.

The Mystery of Moths: Scientists have discovered that moths may play a much broader role as plant pollinators than previously suspected--dispensing pollen under the cover of darkness.

Boosting Bug Activity: Research shows that climate change is expected to accelerate rates of crop loss due to the activity of another group of hungry creatures--insects.

The Queen of Foragers: If you have really good management aspects of alfalfa, this forage specialist says, "you can produce some straight-up rocket fuel."

Mycotoxin Alert: Wisconsin officials ask livestock producers and feed mills to be cautious as flood water contamination and mold in corn, soybeans, and forage crops could threaten human and animal health.

International News

Robotic Dog Learning New Tricks (video): Some call Aibo the "future of robotics"--with its artificial intelligence, ability to provide companionship, and puppy appeal.

Bots and Medicine: Hong Kong scientists demonstrated a new method of controlling nano robots that emulates natural swarm behavior. They hope it will advance the treatment of blood clots.

Searching for Chocolate's Roots: A newfound peace has spurred the hunt for disease-resistant wild cacao within Columbia's borders. What scientists find could help the country expand its role in global trade.

A World First: UK retailers, producers, and manufacturers are taking the lead to drive down the country's annual food waste bill.

The Benefits of GMO Cotton: According to the largest-ever scientific study, China has experienced large and sustained reductions in pesticide use as a result of adopting GMO cotton.
Tasty Treat: Grasshoppers are a crispy, crunchy snack often enjoyed in Uganda during the wet season.

General Interest News

Willie Nelson and Friends (video): Farm Aid came to Connecticut recently with a cadre of country and rock musicians offering up music in celebration and support of the American family farmer.

Major Breakthrough: In a big step forward in the fight against malaria, scientists have caused the complete collapse of a disease-carrying population of mosquitoes by using CRISPR.

Bats Beware: When bats swoop through the night skies devouring insects, there is one species they know not to eat--fireflies. This study determines how these light-emitting insects fend off bat attacks.

Avoiding a "Castaro-bee": Scientists created a microscopic carbon particle that acts as a magnetic sponge, absorbing pesticide residue as it passes through a bee.

Bees and Pesticide: A university study says that glyphosate destroys specialized gut bacteria in bees, but the pesticide company disputes the findings--and this writer says glyphosate has nothing to do with bee health.

California Seal Study: This Cal Poly biology professor launched an ambitious project to study elephant seals.

CAST Information

Check out CAST's page at the YouTube site to view highly regarded ag-science videos about probiotics, food safety, and water issues—or the latest video dealing with proposed mandatory labeling of GMO food items.

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