**March 11, 2016**

**Gene Editing "Zoo"**

**CRISPR Advances Raise Questions**

The CRISPR zoo is expanding fast, and many are wondering how to tame the lion. As reported in this article from Nature, "In the past two years alone, the prospect of gene-edited monkeys, mammoths, mosquitoes have made headlines, as scientists attempt to put CRISPR to use for applications as varied as agriculture, drug production, and bringing back lost species."

Regulators debate about how to deal with such creatures, particularly those intended for food or for release into the wild. In the meantime, an intellectual property dispute rages, as potentially billions of dollars in licensing rights are at stake.

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**News and Views**

**Cuba Moves:** Reports indicate that on March 17 the Obama administration will announce further measures to ease travel and trade restrictions on Cuba, ahead of the president's historic visit to the Communist-ruled island.

**Words from the Ag Secretary:** This overview of Agriculture Secretary Vilsack's keynote speech includes comments about food labeling, TPP, cotton oilseed, and more. This related article looks at Vilsack's announcement regarding the money available through the Conservation Innovation Grant program.

**Farm Bill Appeals:** A broad coalition of agriculture interests, conservation groups, and nutrition advocates is appealing to Congress not to make any cuts in farm bill spending this year.

**Trade Issues and Ag:** Hosted by the University of Nebraska, various government officials and trade experts joined in "A Dialogue on the
The Iowa Water Conference will occur March 23 and 24 in Ames. Click here for information.

**World Food Prize Nominations**
World Food Prize nominations are open for those demonstrating exceptional achievement in any field involved in enhancing food production and distribution and increasing food availability and accessibility to those most in need.

Perspectives--Food Waste
Free to members download of the new book: *Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem.*

Forest Conservation Award Winner
If a tree specialist receives an award in the forest, will anyone hear about it? Thad Rhodes of Kansas received the 2015 Forest Conservationist of the Year award.

CAST Social Media
Check the popular CAST Catch of the Day here and the visually appealing CAST Pinterest site here.

History and Vision for the Future of International Trade for U.S. Agriculture.*

**Video Cases Pending:** This article looks at current "ag-gag" cases, as laws are being challenged in at least four federal courts.

**Agricultural Data Coalition:** The Ohio State University, Mississippi State University, and the University of Nebraska have joined a coalition that will put important farm data into the hands of farmers while keeping it secure.

**Bioenergy and Invasive Species:** The CAST Commentary--A Lifecycle Approach to Low-invasion Potential Bioenergy Production--is available for free download, and members may also view a video of the presentation.

News from the Far Side of the Barn

HD Beauty (videos): These World Wildlife Fund images of animals in Namibia show several creatures that have never been photographed in high definition before.

Bringing Home the Bacon Brothers (video): The American Egg Board uses Kevin Bacon, his brother, and plenty of puns to advertise the incredible egg.

Piper On Guard (videos): A Michigan airport employs Piper, a seven-year-old border collie, to keep the runways safe from birds and other animals. Piper is a Youtube hit.

Ag Day--March 15, 2016
*Events in the Nation's Capital and a Celebration of Agriculture Nationwide*
The Agriculture Council of America (ACA) is composed of leaders in the agriculture, food, and fiber communities—and it is dedicated to increasing the public awareness of agriculture’s vital role in our society.

The ACA and the National Ag Day program were started in 1973. Ag Day is designed as a time when producers, agricultural associations, corporations, universities, government agencies, and others across America recognize and celebrate the abundance provided by American Agriculture.

These links provide resources and information regarding Ag Day events:

- Click here for the ACA's Ag Day homepage.
- Check out the special events in Washington, D.C., on March 14 and 15.
- This site lists resources for the media and those wishing to promote ag events.
- The written and video essay contest winners are featured here.

Emily Dougherty from Indiana won the student written essay contest with her piece titled Agriculture: Stewards of a Healthy Planet, Stewardship for Generations. Ayodeji Ogunlana of Texas took top honors in the video essay contest.

Farmers, agriculture specialists, and university students have contributed to the Ag Day blog page. Scroll down on that page to the entries by two Iowa State University students who also work as administrative assistants at CAST: Kelsey Faivre’s Ag Cheerleaders—Moving Beyond Advocacy (Feb. 29); and Hannah Pagel's Painting My Passion (Feb. 17).

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P.1 tree pic from static.nautil.us, CRISPER pic from nature.com, and leopard pic from webappstatic.buzzfeed. Animal Sec. cow pic from satirewire.jpg. Food Sec. Willy Wonka pic from pinterest.com. Plant Sec. banana pic from treeservicechicago.com. Inter. Sec. pic of horses from edp24.co.uk. Gen. Sec. robot pic from technologyreview.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.

Animal Agriculture and Environmental News

Monarch Butterfly Restoration (video): The National Fish and Wildlife Foundation established the Monarch Butterfly Conservation Fund to protect habitat for these iconic insects and other pollinators.

Cattle on Grass or Grain? (opinion): This summary of articles from Drovers looks at the relative merits of finishing cattle on grass versus grain-based rations.

Pigs and Antibiotics: At the 2016 Pork Industry Forum held recently in Indianapolis, a key discussion included references to antimicrobials, antibiotic resistance, and educating consumers and farmers.
Cows and Wearable Tech: Livestock represents one of the fastest growing segments of the wearable tech market. Now you can track your herd's vital statistics via smartphone.

Google Glass and Moo Monitors: For another look at recent tech devices on the farm, check out this blog—Wearable Tech, Ag, and Hormones.

Pig Potential: This industry expert says the U.S. pig industry is large--but with better biosecurity, an eye for market needs, and acknowledgement of the exchange rate, its potential for growth is much larger.

Another Chapter in the Cage-free Debate: The FDA dealt with a producer of so-called cage-free eggs about a salmonella problem.

Pork Lawsuit: Agriculture Secretary Vilsack says that government lawyers will involve pork industry leaders in discussions that could lead to a settlement of a suit involving HSUS and two pork producer groups.

Will Fido Pull the Weeds Too? This researcher says dogs are capable of more--detecting explosives, drugs, cancer in humans, and even weeds on the farm.

Good News for Rattlesnake Fans: These University of Arkansas biologists find that there are more species of rattlesnakes slithering around western North America than previously thought.

Birds and Gators: Birds and alligators may not seem to be the likeliest of friends, but their interactions help both species survive in Florida wetlands, according to University of Florida scientists.

Food Science and Safety News

Back to the Basics about Three Food Icons (video): This news segment looks at several commonly held myths about bread, milk, and eggs.

Cheesehead Delight (short video): A Wisconsin cheese wins the World Championship Cheese Contest for the first time in nearly 30 years.

Analyzing New Food Safety Regs: This food safety scientist answers questions about the federal Food Safety Modernization Act and how regulations are going to affect farmers and processors.

This Is Your Brain on Chocolate: These researchers look at the impact of habitual chocolate eating on the brain.

Child Nutrition: A Mississippi State University student team's business venture may be one solution to nutritional deficiencies the state's schoolchildren face.

Healthy Happy Face: A recent study found that children were more likely to make healthy food choices when shelves were labeled with "emolabels," almost identical to the ones found on our smartphones.

Cranberry Cocktail: A new cranberry bioactive component apparently has the potential to control urinary tract infections, according to USDA research.

Come and Git It, Y’all: This quiz is designed to gauge how much of a southern foodie you might be.

Flamin' Hot Idea: Behind every bag of Flamin' Hot Cheetos is the rags-to-riches story of an immigrant man.
who worked as a factory janitor and became a top-level executive after coming up with a genius idea.

**Hungry for Plastic?** Two researchers turn plastic to food with a powerful mushroom.

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**Plant Agriculture and Environmental News**

**We All Have Some Odd-looking Ancestors (video):** The fruits and vegetables we know and love did not always look the way they do now. Here's a glance at their ancestors.

**Precision Ag Making Strides:** A new breed of biodegradable soil sensors, composed of crop residue, is pushing hard against the bounds of agriculture technology.

**Biotech and the Environment (opinion):** Calculations by researchers at Purdue estimate the extra land needed if GMOs were eliminated. This pro-biotech report is disputed by some anti-GMO groups.

**Weed Power:** These Ohio State University experts comment about the negative impacts of Palmer amaranth and its glyphosate resistance.

**The Kudzu Curse?** Kudzu--a creeping, climbing perennial vine--is an invasive species that is terrorizing native plants all over the southeastern United States and making its way into Indiana.

**RFS and Consumers (opinions):** An ad claims the Renewable Fuel Standard (RFS) hurts American consumers, causing food prices to rise--but a USDA report disagrees.

**Restoration:** Researchers from Mississippi State University are helping Gulf Coast landowners restore natural shorelines to reduce erosion, support healthy coastal ecosystems, and boost local economies.

**Cotton Unraveling:** Cotton acreage in the United States has been declining for years, with 2015 hitting the lowest mark in decades.

**Pest-fighting Plants:** Scientists at Agriculture Canada’s London research center hope they can enlist plants in the battle against insects that attack fruit and vegetable crops grown under glass.

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**International News**

**McVirtual (video):** McDonald's locations in Sweden will offer Happy Goggles for a limited time. The food packet boxes might smell like fries, but they turn into virtual reality glasses to hook up with smartphones.

**You Want Fries with That Book?** (related to above): Happy Meal promos in the past have included yogurt in the United States and books in England.
Horse Power: This farmer in England prefers horses to deliver feed and bedding for the cattle—and also to move muck from the calf pens and timber from the woods.

Disputed Glyphosate: The European Union will defer a decision about extending approval for the herbicide ingredient glyphosate.

EU and Antibiotics: This article provides information about a recent European Parliament vote regarding antibiotics and agriculture.

You Need a Truck, Ropes, Lifting Gear, and No Fear of Crocs: Australian officials call for anyone willing to take the crocodiles it removes from Northern Territory waterways—maybe 250 of them.

Nigerian Wheat Research: Researchers from several agencies have developed a new wheat variety suitable for cultivation in Nigeria.

Anyone for Frozen Bananas? Only 177 miles from the Arctic Circle lies Northern Europe's largest banana plantation—in Iceland.

Milk and Pork in the EU: Milk production in the European Union is expected to rise again this year despite falling prices, but pork output should stabilize as a market downturn leads farmers to reduce their herds.

Promoting Aussie Ag: This online farming blogger received the Rural Women's Award in Sydney, New South Wales, for her work helping to promote farmers and the food they grow.

General Interest News

Regenerative Farming (video): This North Carolina rancher speaks about having to deal with more extreme weather, as she organizes a 400-acre farm populated with dairy cows, heritage hogs, sheep, and hens.

Seven Business Practices: Those involved in agribusiness management have long known the importance of farm business management as a foundation for farm success.

The Profits Might Not Be Monetary: Urban farms fuel a lot of idealism—and for some, pleasure—but not much in the way of profits.

Takin' Care of Business: According to this USDA data, the "average" American farmer is making a financial go of it often because of a second job off the farm.
Dr. Roboto: A University of Nebraska consortium announced the successful first-in-human use of its miniaturized robotically assisted surgical device.

Wool Shoes for Sprinters: The wool sales pitch is pretty simple—lightweight, fairly tough, weather resistant, breathable, and antimicrobial.

Protecting Trees in the Buckeye State: Several central Ohio parks and neighborhoods have been targeted for chemical eradication of the gypsy moth, another invasive species threatening the state’s tree stock.

Oldies with the Munchies: Food companies may be counting on millennials to continue fueling the snack trend, but the boomer generation is outpacing its younger counterparts by a double-digit margin, according to this study.

Leafy Green Containers (update): This Boston company is transforming large freight containers into grow machines in hopes of turning everyday people into farmers.

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.

If you have a good idea for a CAST publication, contact us by clicking HERE for the "Proposal Format and Background Information Form."

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