EU Rules on Genome Editing

Scientists react to the decision

The European Court of Justice ruled that altering living things using the relatively new technique of genome editing counts as genetic engineering. It would mean any novel food developed with the help of gene editing would need to be labelled as GM. The ruling would also apply to developments in the treatment of genetic disease in humans and genetically altered animals.

Many scientists had hoped that organisms created using precise gene-editing technologies such as CRISPR-Cas9 would be exempted from existing European law that has limited the planting and sale of GM crops—but that did not happen. As one German expert said, “While good news for opponents of such products, it is a setback for genetic research on the continent.”

CAST published a significant issue paper about this topic earlier in July—Gene Editing in Agriculture: Methods, Applications, and Governance. The organization benefits from experts who do research and publish insights about biotech. The following three BCCA winners maintain Twitter accounts that cover science and ag issues, including the genome editing debate: Alison Van Eenennaam, C. S. Prakash, and Kevin Folta.

News and Views

Trade Aid: Agriculture Secretary Sonny Perdue announced a $12 billion short-term relief program to aid farmers who are currently bearing the repercussions of trade disputes. According to Perdue, the funds will be paid out through three programs administered under the Commodity Credit Corporation Charter Act. Check here to see how members of the agriculture industry took to social media to express their reactions.

Trade Relief? President Trump reports progress in trade negotiations with the European Union. He says the two sides plan to work toward zero tariffs and barriers.
In celebration of Shark Week, a team of scientists and researchers created a new interactive map with animated shark tracks and commercial fishing activity along the East Coast.

**Endangered Species**

According to an Ohio State University report, most Americans support the Endangered Species Act despite efforts to curtail it.

**Submit an Idea**

We welcome suggestions for future CAST publications and projects. Click here to submit ideas.

**Discovery Demonstration**

Teams of college students from the U.S., Canada, and China will compete at the 2018 ASABE Annual International meeting to build robots that mechanize farm work.

**Catch CAST Online!**

Follow us on social media to stay up to date on the latest ag trends and recent CAST news!

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**Institute for Antimicrobial Resistance Research and Education:** Iowa State University will lead a new research center into antibiotic-resistant bacteria--partnering with the University of Nebraska-Lincoln, the University of Iowa, and the Mayo Clinic.

**Free-range Poultry Paper:** CAST's influential issue paper--Impact of Free-range Poultry Production Systems on Animal Health, Human Health, Productivity, Environment, Food Safety, and Animal Welfare Issues--has been featured in the media and downloaded from the website many times. Also, check out a related blog from Jayson Lusk regarding the alignment of animal welfare and profits.

**News from the Far Side of the Barn**

**The Great Escape (video):** So that's how the chicken crossed the road.

**If at First You Don't Succeed (video):** This newborn giraffe has a tough time taking his first steps.

**Golden Gathering (video):** More than 360 golden retrievers gathered in Scotland to celebrate a special anniversary.

A Cut Above the Rest: This man set a new Guinness World Record for slicing watermelons on his stomach. Needless to say, don't try this at home.

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**Capitalizing on County Fair Season**

*Through the Evolving Eyes of an Exhibitor*
Ever since Kylie Peterson--CAST’s Communications and Social Media Specialist--was a little girl not yet old enough to exhibit animals of her own, the county fair was a highly anticipated time of year. Although she still looks forward to this season every summer, her involvement and experiences have changed tremendously throughout the past 23 years.

As those years passed by, she became more involved and the fair quickly developed a different meaning. What was once just a fun day at the fair became the event of the summer, in her eyes. After working hard throughout the year, the fair was the ultimate reward. She was proud of what her family did for a living and the fair was always a way to showcase their passion and hard work. It was a chance to grow—and grow up.

Regardless of your involvement, Kylie is sure you have memories filed away from your time at the fair. Now that she is a 4-H has-been, Kylie spends a great deal of time thinking back on the memories made, friendships created, and lessons learned. She now lives vicariously through her youngest sister and celebrates in her successes. As she said, “It’s gratifying to see individuals display the fruits of their labor and watch the agriculturalists of tomorrow prosper and grow through their experiences at the fair. That feeling of accomplishment, passed down from one generation to the next, instills confidence in the future of agriculture.”

During this year’s local and state fair season, Kylie encourages all of you to step outside the grandstands or midway and instead open your eyes to the best American agriculture has to offer. Ask questions, learn something new, or find ways to get involved. Click here to read more about Kylie’s memories from county fair season.
Myth Busters (video): This video provides an overview and busts the myth that the monitoring of animal welfare in meat plants is inadequate.

The Scoop on Poop (video): Dairy farmers share the scoop on how they manage valuable resources responsibly to protect the environment.

Wild Horses: A University of Nevada-Reno researcher looks at ecosystems and wild horses on the rangeland.

Slat Gap Study: This project was used to determine the most effective concrete flooring for pigs to balance sow comfort, manure management, and air quality.

Beating the Heat: Kansas State researchers are making progress on a study that will help define how water intake relates to a cow's ability to adapt to heat stress.

Antibiotics, Sick Animals, and Regs: This article looks at what happens to animals that are being raised without antibiotics—or ones raised under the USDA Certified Organic guidelines—when they get sick.

Fast as Sharks: The fastest shark in the world can swim 60 miles per hour. Humans are much slower, but researchers at the University of Nebraska-Lincoln are looking to close the gap.

Milking Your Camel: Some tout camel milk as a new super food, but others ask if it is legal, safe, and nutritious.

Betting on Pig Power: One of the largest U.S. utility companies has begun generating power using "renewable" natural gas created by capturing methane from the waste produced by 62,000 hogs.

Food Science and Safety News

The Value of School Meals (video): Researchers show school meals do not contribute to obesity. Learn more from this Ohio pediatrician and professor.
Challenging Common Beliefs
(video): A recent study shows that consuming dairy products such as milk and cheese could cut the risk of heart disease and strokes.

Food Health Having a Bad Year? According to these officials, this has been a bad year for foodborne illnesses--but why?

Going Local: The University of Kentucky looks at the strong demand for local foods in the rural areas of the state.

Beef Meal Kits: Fresh beef meal kits are available in 1,500 grocery stores across the country--the result of a partnership between the American Foods Group and the Beef Checkoff program.

Evidence in Infants: The benefits of omega-3 fatty acids were highlighted again in a Norwegian study that demonstrates the positive effects a maternal diet rich in oil can have on a child's problem-solving abilities.

Got Milk? According to the results of a recent poll, experts say the FDA's move to enforce the agency's definition of milk could be happening too late to impact consumer behavior.

Online Shopping: A new survey found that Americans over the age of 50 do not shop for their groceries online, but lowering a few hurdles could sway those odds.

Plant Agriculture and Environmental News

Breeding Better Blueberries (video): Do you love blueberries? If so, then feast your eyes on NC State’s blueberry breeding program--one of only a few in the country.

Busting Corn Myths (video): This video sets the record straight on common corn myths.

Designer Seeds: Experts are developing seeds with desirable traits, and this company is customizing seeds to grow best in the soil and weather at the specific farms where they'll be planted.

In Deep Water with Rice Research: A team of Cornell and Japanese researchers has discovered a new genetic mechanism that allows certain rice plants to survive months-long floods.

Century-old Change: 115 years of data gathered by the University of Nebraska-Lincoln has revealed an extended average growing season and buildup of yield-stifling heat due to climate change.

Soy's Hidden Feed Value: Soybeans have traditionally been valued for their protein, but some researchers say their amino acid by-product is worth more.

Saving What's Left: Desperate times call for desperate measures, and these drought stricken farmers are abandoning their grain crops and bailing them for cattle feed instead.
International News

Falling in Love with Ramen (video): Once considered a cheap food for students, good ramen has become an obsession.

Paving the Way for Poultry: Sixty million female commercial chicks will be produced annually from the world's largest layer hatchery recently opened in China.

Farmers, Where Are Your Cows? Cattle producers are using satellite tracking devices in various countries to keep an eye on their herds.

Food on the Move: Vietnam is likely to earn 4.7 billion U.S. dollars from exporting vegetables and fruits this year.

Storage and Food Security: This maize study in Uganda looks at improved storage technology and whether or not it promotes modern input use and food security.

"Porkpreneurs": Good-quality, commercially fed pork could hold the key to future success in Africa.

Fueling Antibiotic Resistance: A UN report found that most countries are still administering antibiotics to make animals grow faster when they should only be used for human treatment.

The Age of Digital Epidemiology: African swine fever is a concern for the pig industry with new cases emerging in Europe weekly.

General Interest News

This UK company is going beyond today's green energy movement and harnessing power solely from solar, wind, and wave sources.
Finding a Place for Plastic (video): Old silage bags are getting new life thanks to a plastic recycler based in Arkansas.

Generation Z (video): Millennials make a lot of headlines, but studies show a bigger and younger generation is waiting in the wings to take on their role in agriculture.

On Eagle’s Wings: This team of veterinarians from the University of Florida helped America’s symbol soar again.

Agribots: From picking to pollinating, agribots are pushing farming into the future.

Evolution Explanation: Elephants have beaten the odds and evolved powerful strategies to keep cancer at bay. This rarity may help scientists explain cancer in humans.

Monarch Migration: After five years and nearly 15,000 tagged butterflies, scientists have more information on the 500-mile monarch migration in late summer.

From rotation and contouring to cover crops and no-till, this farm family tries to combine new and old techniques to preserve and build the soil.

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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