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*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 the CAST organization.

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#### A Beautiful Invasion



Canada's capital city has been [alight with the glow of fireflies](#) this summer.

#### The Road Out of Poverty

The [2017 Borlaug Dialogue International Symposium](#) on October 18-20 will feature Dr. Adesina and many more noted speakers. The event is part of the World Food Prize week in Des Moines, Iowa.

#### College Ag Students

College Aggies Online connects university students from across the country. Its fall competition [features a scholarship program](#) that helps students and collegiate agriculture clubs utilize social media and advocacy to share agriculture's story.

#### Fishing for Research

A [University of Florida research team](#) will receive a \$1.1 million

*August 11, 2017*

## Kids, Farms, and Safety

Not many grow up on a farm nowadays, but plenty of folks still sing the praises of hard work and "rural values." This 4-H parent touts the [advantages of chores and "fun work"](#) as ways to teach responsibility. Yes, some might consider "fun work" as an oxymoron, but a U.S. senator recently published a book advocating childhood work as a way to develop resiliency--as he calls it, "[scar tissue for the soul](#)."



For many, summertime means livestock shows, garden work, tractor driving, and other farm activities. Those of us lucky enough to grow up on a farm know the challenges and rewards of such endeavors. It's also a good time to point out that, since 2001, there has been a steady decline in the number of non-fatal injuries to farm youth--however, a child in the U.S. dies in an agriculture-related incident every three days. The National Children's Center for Rural and Agricultural Health and Safety has issued [updated guidelines for children working](#) in agriculture, and [National Farm Safety and Health Week](#) will occur next month. Work hard, stay safe, and have some fun.

## News and Views

**Biotech Update:** The pace of innovation continues at roller coaster speed, so buckle up: (1) Scientists at The Ohio State University use "[tissue nanotransfection](#)" to switch cell function and rescue failing body functions. (2) The CRISPR/Cas9 gene editing tool has already been involved in an [impressive list of accomplishments](#) this year. (3) This video journalist went to a university lab to see [how genetically modified organisms are made](#).

**Biofuel Blend:** Minnesota will [raise its biodiesel standards to a 20% blend](#) starting next summer--a move lauded by soybean farmers but

grant as part of the NOAA RESTORE Act Science Program.

### Waste Summit

The Midwest Food Recovery Summit is set for Sept. 6-8 in Des Moines, Iowa. It will bring together a range of speakers spanning many industries and [all facets of food waste reduction and recovery](#).

### Ag in Schools--Globally

More and more countries are realizing that [teaching kids the basics of where their food comes from](#) might be a good idea.

### CAST Social Media



Click here for [links to CAST sites](#): Twitter, Facebook, LinkedIn, Pinterest, videos, and blogs.

criticized by diesel producers and the trucking industry.

**WOTUS Rewrite?** EPA Administrator Scott Pruitt met with farmers, elected officials, and ag industry leaders to hear feedback on [rewriting the Waters of the U.S. Rule](#) (WOTUS) under the Clean Water Act.

**Communication, Connections, and Trust:** Agriculture scientist and biotech advocate Kevin Folta says that effective communication is [rooted much more in our emotional selves](#) (pathos) than in our logical selves (logos).

## News from the Far Side of the Barn

### Hyper by Nature

**(video):** Hummingbirds move like a hovering spot of color, a blur of wings--but these [high-speed cameras captured different images](#).



**Buff birds:** more than 25% of a hummingbird's weight is in its pectoral muscles. [More facts about hummingbirds here.](#)

### Farming, Parody, and

**Communication (video):** An online producer visits Derek Klingenberg's [ag operation and viral video production](#) realm.

**Do-It-Yourself Lawn Fertilizer:** University professors cite the nutrient advantages, but [this application could get you arrested](#).

## CAST Highlights Our Youngest Member

This week, CAST highlights one of our youngest members, who recently reached out to CAST about becoming involved. With an up-and-coming generation of young agriculturalists, CAST's ability to fulfill its mission is more important than ever, and the excerpts from CAST's most recent blog entry highlight why. [Click here for the entire story.](#)

### Digging Deep into Agriculture and the Dirt

Jack Liebeck, an eighth-grader from California, is not like most 13-year-olds. Instead of filling his free time with *Sports Center* and video games, Jack prefers to get his hands dirty in his garden. "I have always been interested in plants. I have a wide variety, including carnivores, fruits, vegetables, palm trees, and more. It's quite fascinating to see how a single plant has the ability to survive in various weather conditions."

Jack found CAST while exploring the internet for articles to meet his school reading requirements. "I believe that CAST will be a great resource for science-based information--I look forward to reading through the large variety of publications. I encourage my peers to use the CAST website if they are interested in sound science. I am only 13 and some of the articles were above my reading level, but I was still able to understand most of the information provided because of the small data summaries throughout the articles--making it easier to comprehend."



Jack enjoys helping plants grow--but he's tough on weeds.

Note: CAST is proud to offer [free membership to all students](#).

## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 family pic from humanewatch.org and firefly pic from adamlauAP.com. Animal Sec. fish pic from pointe-au-baril.com. Food Sec. dog pic from google.com. Plant Sec. plant pic from spokesman.com. Inter. Sec. goat pic from socwall.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

**Antibiotics and Ag (opinion video):** Scientists are studying [how superbugs can get into the food supply](#); some think modern farming practices and the overuse of antibiotics contribute to the problem.

**Sensible Antibiotic Use (opinion):** This cattle expert thinks farmers have management tools--vaccines, shelter, nutrition, low-stress handling techniques--that can [help them use fewer antibiotics](#). This Animal Health Institute site provides a [Q&A format about antibiotic use](#).

**Modern Hog Production:** The use of technology has transformed modern farming, and these photos show how [hog producers use automation](#) to deliver better animal care.

**Dairy Genetics:** A new milestone in dairy genetics was achieved recently when the [two millionth individual animal genotype was recorded](#) in the U.S. dairy database.



The U.S. Army Corps of Engineers has proposed spending \$275 million to upgrade defenses against an invading force--[Asian carp threatening the Great Lakes](#).

**Pointing Dead Zone Fingers (opinions):** An environmental group blames the meat industry for much of the dead zone problem in the Gulf of Mexico--the [National Hog Farmer group disagrees](#).

**COOL Update:** The USDA issued a final rule allowing it to take action as needed, including levying civil penalties [against violators of the Livestock Mandatory Reporting](#) rule and country-of-origin labeling (COOL) regulations.

**Pig Research Helping Humans:** University researchers made a discovery that could decrease the [costs associated with IVF in humans](#)--and it all started with piglets.

**Salmon Update:** [Biotech salmon from AquaBounty](#) is now on sale in Canada--while the United States appears to be caught in a labeling battle.



### *Food Science and Safety News*



**Bacteria on the Menu:** This food scientist says [getting bacteria with your food](#) is a risk if you eat birthday cake after the candle blowing, dip a chip after someone double-dips, or drink from a beer pong cup.

**Sweet Tax Makes Some Folks Sour (video/opinion):** Cook County's long-delayed [tax on sweetened beverages](#) took effect, and [not everyone is happy](#) with the move.

**Food Safety at the Ballpark:** *Sports Illustrated* is out with its 2017 [MLB Ballpark Food Safety Rankings](#)--fans hope to avoid culinary fouls and gastro brushbacks at the old ball game.

**Soy for the Heart:** Soybean farmers and food manufacturers can tout the [heart health benefits of soybean oil](#), according to the USDA.

**Should I Microwave My Sponge?** All agree that kitchen sponges harbor bacteria--but opinions vary [about how to best clean them](#).

**Another Veggie on the Superfood Radar?** According to the Centers for Disease Control and Prevention, [watercress is the most nutrient-dense vegetable](#) you can eat.



Kansas State University researchers figure out how an antioxidant might [bring more sizzle and staying power to bacon](#).



## ***Plant Agriculture and Environmental News***

**Cornhusker Becomes Sorghum Husker:** This University of Nebraska scientist says that [sorghum shows potential as fabric dye](#).

**Berry Research and Cancer:** Ohio State University researchers are exploring potential links between [black raspberries and their preventive power](#) regarding various forms of cancer.

**Biotech Rice:** A new version of genetically modified rice [contains multiple micronutrients](#) rather than just one, overcoming a limitation of early modified rice plants.

**Wheat Disease Concern:** Farmers are struggling to [control a deadly fungus](#) that threatens Asia's wheat crop and now has U.S. scientists on guard.

**Wheat at the Midnight Hour:** Kansas State University researchers received nearly \$1.8 million to begin studying the [impact of high nighttime temperatures](#) on the yield and quality of wheat.

**Good-guy Fungus:** A beneficial soil fungus could offer a biobased approach to [battling a pathogen that kills oaks](#) and certain other tree species.

**Soil Health Methods:** Mississippi State University research provides [insights about cover crop use](#) and the improvement of soil health.



Not everyone appreciates their presence, but a [beautiful corpse flower is ready to bloom](#) at Cornell University.



## ***International News***

**Extreme Makeover--Urban Transformation (video):** As this clip shows, a city in China [demolished 36 buildings in 20 seconds](#) to promote its remodeling program.

**Food Security and Small Farmers (video):** These experts [encourage more investment in agriculture](#), particularly for smallholder farmers in Africa. This site also looks at a woman working hard to be a successful farmer.

**Better Beans through Biotech (video):** This scientist works to [solve the issues of bean root rot](#) in East Africa. Beans are a food security crop in the region and a staple for female farmers.

**Macs and Yum China:** McDonald's will [nearly double its footprint in China](#), although its rival--Yum China--still has many more outlets.

**Criminal Contamination:** Germany's agriculture minister said that the [contamination of millions of eggs](#) with a potentially harmful insecticide was "criminal."

**Egg Update (related to above):** A Dutch egg producer's practice of mixing a toxic insecticide with a cleaning agent for use around chickens has apparently led to the world's [largest recall of eggs since 2010](#).

**Corn Boost in Kenya:** A pioneering soil carbon project helps to [double maize production in areas](#) of Kenya, improving farmers' livelihoods and agricultural practices.



Scientists are battling "goat plague," a [virus affecting herds](#) in Africa and Asia. The virus is not harmful for humans.



## *General Interest News*

**Rancher, Farmer, Fisherman--Conservation Heroes (video):** This documentary looks at people who demonstrate how [individual efforts to protect our land and water](#) make a difference.

**Farmers Markets:** The [Farmers Market Directory lists](#) markets that feature two or more farm vendors selling agricultural products directly to customers at a common, recurrent physical location.

**Biotech Super Coral?** Some researchers are proposing a drastic measure to save a threatened ecosystem--[genetically engineering coral for reefs](#).

**Innovative Farming:** These six farmers have found [innovative ways to grow plants](#) in today's climate--whether in corn country or coal country, they might use fish tanks, smartphones, or other creative methods.

**CAST Forthcoming Issue Papers:** Check here for a look at various research papers that look at specific programs, policies, and techniques that will [advance global food security](#).

**Back to the Future:** Advances in robotics and sensing technologies can change today's agribusiness model--according to this professor, [small producer operations might become more feasible](#).



## 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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- \* American Dairy Science Association
- \* American Farm Bureau Federation
- \* American Meat Science Association
- \* American Meteorological Society, Committee on Agricultural and Forest Meteorology
- \* American Seed Trade Association
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- \* American Society of Agricultural and Biological Engineers
- \* American Society of Agronomy



- \* American Society of Animal Science
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- \* Land O'Lakes
- \* Monsanto

- \* National Corn Growers Association/Iowa Corn Promotion Board
- \* National Milk Producers Federation
- \* National Pork Board
- \* North Carolina Biotechnology Center
- \* North Central Weed Science Society
- \* Northeastern Weed Science Society
- \* Poultry Science Association
- \* Society for In Vitro Biology
- \* Soil Science Society of America
- \* Syngenta Crop Protection
- \* The Fertilizer Institute
- \* Tyson Foods
- \* United Soybean Board
- \* Weed Science Society of America
- \* Western Society of Weed Science

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