

Friday Notes

Council for Agricultural Science and Technology

CAST

The Science Source for Food, Agricultural, and Environmental Issues

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.

In This Issue..... Click to Read

[Your Piece in the World Hunger Puzzle--P.2](#)

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Wipeout

Winter can be a bit rough--even in Hawaii--[as this monster wave demonstrates.](#)

Agricultural Research News

The USDA is providing grants totaling more than \$30 million to [fund 80 research projects](#) regarding food safety, antibiotic resistance in food, and the resilience of plants. Agriculture Secretary Vilsack also says that President Obama's 2017 budget proposes investing \$700 million in the USDA's Agriculture and Food Research Initiative.

Scholarship Opportunities

Juniors and seniors in college who plan to pursue a career in swine production management, veterinary work, or related fields are invited to submit an application for consideration to receive one of the

February 5, 2016

The Times, They Are a Changin'

With only a small percentage of Americans directly connected to the land, a romanticized view of farming continues. Idyllic Grant Wood farms still exist, but most food producers have moved on from 1950s farming techniques. This author says that the work ethic, pride, and focus on family continue--but [the tools farmers use have changed.](#)

Dr. Alison Van Eenennaam of UC-Davis took a clever look at farming changes in her 2012 parody video titled "[Were Those the Days, My Friend?](#)"



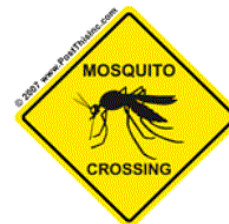
A team of experts is working on CAST's ambitious 12-paper project--[Ag Innovation](#)--that will at specific programs, policies, and techniques to advance global food security. On a more analog note, check out this [blog entry about powering down](#) and going tech-less on the farm for a spell.

News and Views

****Zika Battle:** A University of Kentucky entomologist is leading an international effort to find long-term, sustainable control options to effectively manage a mosquito known to transport several potentially deadly viruses, [including the Zika virus.](#)

****TPP Update:** The Trans-Pacific Partnership was signed by 12 member nations in New Zealand, but the massive trade pact will still require [years of tough negotiations](#) before it becomes a reality.

****Low Prices, High Subsidies:** The government faces three [high-cost years for farm subsidies](#), beginning with \$5.8 billion for this year, says the Congressional Budget Office.



[scholarships sponsored by the Pork Checkoff](#)--deadline Feb. 18.

Environment Award

An international survey of more than 400 colleges ranked the University of California-Davis third in the world for [environmental sustainability](#).

Corn and Climate

Researchers with the Climate and Corn-based Cropping Systems Coordinated Agricultural Project [have documented 130 findings](#)--many available in a Feb. 11 webinar by Iowa State University.

Desert Research Institute

These researchers emphasize the distinct correlation between Israel and Nevada. They think an understanding of [how each manages its water issues](#) is critical in order to maintain sustained economic growth.

All about the Money

[Check out this review](#) of Hiram Drache's new book, *Organic--It's All about the Money!*

CAST Social Media

Check the popular CAST [Catch of the Day here](#) and the visually appealing [CAST Pinterest here](#).



****Poultry Regulations:** According to the USDA, [new safety standards](#) for chicken and turkey products will help to prevent an estimated 50,000 illnesses a year.

****Deadly Explosion:** A massive [2013 fertilizer company explosion](#) that killed 15 people and caused nearly \$250 million in damage was likely the result of bad ventilation and poor material storage decisions.

****Hunger Conference:** The White House hosted a [conversation about child hunger](#) in America, with experts and direct service providers discussing how hunger continues to harm children across the country. See page two below for related items.

****Ag Corporation Deal:** [ChemChina and Syngenta](#) settled on an agreement regarding the Chinese company's \$43 billion bid for the Swiss seeds and pesticides group. Some farm groups have raised concerns.

News from the Far Side of the Barn

Carnivorous

Counters: Apparently, these [meat-eating plants can count](#) up to at least five. Mmmmm. One gecko, two gecko...



Venus fly trap and a lizard snack.

Chickens Gone Wild (short video): The feral chickens of Kauai provide a unique opportunity to study what happens when [domesticated animals escape](#) and evolve.

Super Bowl Buzz (videos): The hype starts early nowadays, so [catch a look at several](#) of the Super Bowl ads--including a wiener dog stampede.

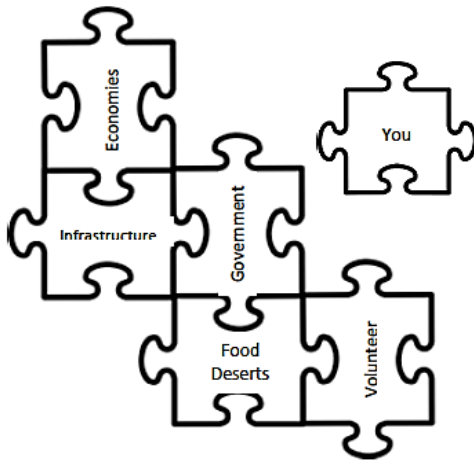
World Hunger and Jigsaw Puzzles

Iowa State sophomore Hannah Pagel takes her course material seriously. When discussions about world hunger led to issues such as food deserts and local food insecurity, she considered the wide scope of the problem. In a recent essay, Hannah explains why world hunger is like a puzzle.

"There are so many factors that make up each piece of this puzzle--food deserts, infrastructure, economies, the government, and much more. Each piece needs to be taken into account before we can see the final picture, and that will take time. The cool thing is, we all have a piece to this puzzle--whether it is growing the food we eat, driving food across the country, working in the grocery store, packaging meals for others, donating food, or just spreading the word about food security. When we come together and connect our pieces, we are contributing to a solution."



Photo at right: Hannah at a World Food Prize meal packaging event.



[Click here to access the full blog from Hannah](#) as she connects ideas about food deserts, store closings, the World Food Prize, and the fight against world hunger.

[Click here to access a recent CBS News story](#) about the Walmart closings that are affecting food desert situations.

Many students find ways to be a puzzle piece in the fight against hunger:

** The SHOP is a [student-run, on-campus food pantry](#) at Iowa State University.

** A state [FFA Association and Meals from the Heartland](#) partnered to package meals.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P.1 surf pic from surfermag.com, American Gothic cartoon from blogsnjit.edu, and Venus flytrap pic from static.ddm.cdn.com. Animal Sec. dog pic from pbstusing.jpg. Food Sec. floor pic from sodahead.jpg. Plant Sec. shirt pic from zazzle.com. Inter. Sec. drone pic from slantnews.jpg. Gen. Sec. robot pic from robot.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Eggs, Poultry, and Sustainability (opinion): This UC-Davis expert says the [egg industry is in transition](#) toward overall better sustainability.

Biotech Pigs to Fight Disease: These university researchers developed pigs that are [resistant to an](#)

[incurable disease](#) that plagues hog barns--porcine reproductive and respiratory syndrome.

Beef and Global Competition (opinion): According to this report, the U.S. beef industry faces an increasingly competitive global market, and the authors offer three [suggestions to keep U.S. products competitive](#).

Fewer Pigs, More Meat: American pig farmers brought a [record 24.3 billion pounds of pork chops and tenderloins](#) to dinner tables last year, but they did it using fewer hogs for breeding.

Spotlight on Real Ranchers? (opinion): This award-winning ranching family has spent generations [raising beef while improving the land](#). This writer wishes hordes of reporters would descend on that location.

Moving Cattle Online: A proposal for an [online auction that could shake up the U.S. pricing model](#) for cattle is set to make its public debut.

Livestock Auctions--Changes and Traditions (related to above): Livestock auctions have included old style, digital, and even a touch of [rap, rhythm, and rhyme](#).

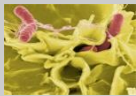
Bird Flu Theory: A University of Minnesota study says farmers who actively tilled fields near turkey barns in the early days of last year's bird flu outbreak may have [unwittingly helped spread the virus](#).

Quest for a Super Bee: These scientists and breeders are trying to [create a hardier honeybee](#), but some don't agree with the program.

The Buzz in Grazing Circles: This expert says livestock producers need to be cautious before jumping at the concept of mob or [ultra-high stock density \(UHSD\) grazing](#).



This [article looks at the question](#)--who loves ya more, your cat or dog? Above, we just hope the cat enjoys the hug.



Food Science and Safety News

Comfort Food Findings: This list of the [top ten comfort foods](#) chosen by Americans no doubt stirs debate. No surprise--number one starts with a "p" and ends with a "za".

Eat It or Trash It? (video): Once again, the [five-second rule is in the spotlight](#)--and this study refers to "science" and on-the-street interviews.

Super Bowl Wings: Apparently, Americans will eat [3 billion wings on Super Bowl Sunday](#)--enough poultry to stretch from the Panthers' home field in Charlotte to the Broncos' field in Denver nearly 53 times.

Avoid Personal Fouls (related to above): These safety tips might help fans avoid a foodborne [illness during Super Bowl parties](#).

Jerky Crazy (audio available): Americans spent \$2.8 billion on dried meat snacks last year. Millennials are snacking more than



Five-second rule OK or a sucker's way?

ever, and people [want more protein in their diets](#).

Restaurant Food Safety: The *E. coli* outbreak linked to Chipotle restaurants in more than a dozen states [appears to be over](#), the Centers for Disease Control and Prevention announced.

Why They Buy: Taste, price, and convenience are no longer the sole [deciding factors when people buy food](#) and beverages. According to a new study--health, safety, and social impact now weigh in too.

The Year of the Pulse Continues: The term "pulse" refers to dried seeds--[beans, lentils, and peas](#) are the most commonly known and consumed types.

Cuckoo for Cacao: This foodie [advocates the use of cacao powder](#)--for yogurt, oatmeal, fruit, or even smoothies.

Food Industry Advances: These 32 [food innovations will change our lives](#), according to this writer.



Plant Agriculture and Environmental News

Gumweed Power: A yellow plant on Nevada roadsides has the [potential to be used as jet fuel in the military](#). Research for the plant known as gumweed is being led by the University of Nevada's College of Agriculture.

Soy Ahoy: In 2015 the soy checkoff partnered with researchers to [develop 29 new soy-based products](#)--paper, plastic, adhesives, and others--that replace petrochemicals and help with sustainability objectives.

Weed Worry: Weed scientists at the University of Arkansas selected (in the greenhouse) for a population of pigweed that is apparently [tolerant to the herbicide dicamba](#) at a field rate.

Pigweed on the Move (related to above): A report from the 2016 Tri-State Soybean Meeting looked at herbicide-resistant pigweed [moving into Mississippi](#).

Weed Research (related to above): [CAST Issue Paper #55--Herbicide-resistant Weeds Threaten Soil Conservation Gains: Finding a Balance for Soil and Farm Sustainability](#).

Fishing Woes and the Dead Zone (opinion): This Texas A&M researcher says the ethanol/corn boom has [added to the Gulf Dead Zone](#).



The shirt says it all.

Seeing the Forest for the Trees: The Natural Resources Conservation Service is accepting applications for Kansas Forest Service's "Water Quality Improvement through the [Implementation of Forestry Practices](#)" initiative.

Upping Wheat Yields: Wheat yields could be significantly increased thanks to varieties with [a superior form of a common enzyme](#), according to new research.

Plants and Proteins: A University of Nebraska-Lincoln research team found that a [bacterial plant pathogen](#) suppresses a plant's immune system through the action of a protein called HopE1.

Why Don't We Eat 'Em? These writers say that [nearly 300,000 plants are edible](#), but we only eat approximately 200 types. Why?



International News

Drones and Eagles (video): As authorities scramble for effective ways to [counter rogue drones](#) buzzing around Dutch skies, the National Police have an unusual solution--the mighty eagle.

CRISPR in the UK: UK scientists get the go-ahead by the fertility regulator to [genetically modify human embryos](#)--the first time a country has approved the DNA-altering technique in embryos.

Update--Reactions to Mafia Allegations (video available): A report about [mafia involvement in Italian agriculture](#)--especially olive oil--by CBS News magazine *60 Minutes*, naturally raised various reactions.



Attack eagles down rogue drones.

Biotech Beans in China: After more than a decade of research and development, Monsanto's Roundup Ready 2 Xtend soybeans are [approved by China for import](#) for use starting this season.

Wine Time: High demand and changes in the market mean [challenges and opportunities](#) for grape wholesalers. Interest in the sweet fruit grows in Asia; policy changes in the Middle East create competition.

Banking It in Japan: [Food banks are springing up in Japan](#) as people become aware of the disconnect between food waste and the needs of the nation's hidden poor.

High Tech in the Land of the Long White Cloud: In the blue skies above a livestock farm in New Zealand, a [drone flies over flocks of sheep](#).

Dutch Treat: Pig farming flourishes in China with Dutch help--for example, [design and development](#) of a new pig breeding unit near a city in Liaoning province.

Doin' the Bunny Hop: [Rabbit farming](#)--known as cuniculture--is booming in Zimbabwe; many farmers recognize gaps in the market for the supply of meat.



General Interest News

Robot Butler (video): This little [robot can recognize family members](#), make calls, detect fires, and spot intruders. But will people buy a bot when there are less expensive ways to control a smart home?

Turf Doctor: A Texas A&M ecologist has completed a study identifying ways to [reduce the look of wear and tear](#) from athletic turf traffic.



A farm robot gets its "hands" dirty.

In Case Winter Has You Dreaming: Hawaii has large cattle ranches and accounts for [100% of the production of six foods in the United States](#)--macadamia nuts, coffee, bananas, papaya, taro, and guava.

Bedbug Nightmares: Researchers sequenced the genome of the common bedbug--a [blood-sucking insect](#) that has reemerged globally as a pest capable of withstanding most insecticides.

Dinner in an American Home: The University of Nebraska-Lincoln is launching a [cultural exchange program](#) that offers international students a taste of American life.

Kentucky Stockyards Fire: Fire [destroyed the 70-year-old Blue Grass Stockyards](#) in Lexington, Kentucky, as flames spread to nearby businesses and killed 20 head of beef cattle.

Robot Agriculture: The world's first [robot-run lettuce farm](#) is predicted to produce 30,000 heads daily.

What's the Buzz? The Food Tank organization highlights 35 [interesting media projects](#) around the world--dealing with agriculture, nutrition, and other topics.

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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