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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 CAST.

In This Issue..... Click to Read

[CAST Aquifer Depletion Publication Presented in D.C.--P. 2](#)

[Animal Agriculture News](#)

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Surf's Up--But Don't Grab Your Boards



An excited Canadian filmed [an ice tsunami that swept over the retaining wall](#) and onto the boulevard.

New Publication Looks at Open-source Data and Agricultural Research



Dr. Sylvie Brouder of Purdue University will present

highlights from CAST's new commentary--*Enabling Open-source Data Networks in Public*

Agricultural Research--at three events on March 11 in Washington, D.C. The publication will be available on that date, and [details are listed here regarding attending the events](#).

Share Your Thoughts

If you are interested in writing a science-based commentary for the

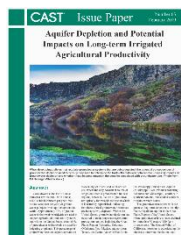
March 1, 2019

The Importance of Groundwater

Presentations focused on key findings from new CAST paper

Groundwater is the Earth's most extracted raw material, with almost 1,000 cubic kilometers per year pumped from aquifers around the world. Approximately 70% of groundwater withdrawals worldwide are used to support agricultural production systems.

CAST's new issue paper--[Aquifer Depletion and Potential Impacts on Long-term Irrigated Agricultural Productivity](#)--reviews the causes and consequences of groundwater



depletion, with a focus on impacts to agriculture. This understanding can aid in developing effective policies and practices for groundwater development, use, and management.

Check page two below for more about the publication--including key takeaway points and helpful links.



Dr. John Tracy (Texas A&M) was the publication task force chair, and he led three presentations in Washington, D.C., about "aquifer depletion." [Click here for a YouTube version of the presentation and panel discussion.](#)

News and Views

EPA Confirmation: The Senate confirmed [Andrew Wheeler as the administrator](#) of the Environmental Protection Agency.

WTO Decision: The World Trade Organization ruled that China was improperly [propping up its wheat and rice farmers](#) by maintaining artificially high prices for their crops.

Farm Economics: This report says U.S. farmers are struggling to pay back loans after years of [low crop prices and fluctuating export markets](#).

Support for the USMCA Trade Agreement: A coalition of more than 200 groups has formed to urge Congress to pass [the U.S. Mexico Canada Agreement](#).

CAST blog, contact [Kim Nelson](#) for more information.

National Ag Day Info

National Ag Day is set for March 14. [Check here for information.](#)



Essay Winners

The Agriculture Council of America announced the [2019 National Ag Day video and written essay winners](#). The theme was "Agriculture: Food for Life."

Hunger Conferences

Registration (deadline March 31) is open for the [Ending Global Hunger Colloquium at Purdue University](#) that will occur April 10-11. Also, check here for details about the [Iowa Hunger Summit](#) (deadline May 1) that will occur during next fall's World Food Prize week.



GOT AN IDEA?

Send in Ideas

CAST [welcomes suggestions](#) for future publications and projects.

Spring Meeting

The [Animal Agriculture Alliances Stakeholders Summit](#) will be in Kansas City, Missouri, May 7-9.

CAST Social Media



Farm Bill Concerns: USDA [officials heard from interest groups](#) about (1) timely payments for dairy farmers, (2) the need to remove barriers for growing cover crops, and (3) smooth sign-ups for conservation programs.



"Don't Fear Your Food": Agriculture Secretary [Sonny Perdue spoke](#) about the dangers of the "fear-your-food" movement.

Ag Communication and Credibility (video): Kevin Folta--Univ. of Florida professor and [2016 BCCA winner](#)--spoke about "[Rethinking Science Communication to Engage the Concerned Consumer](#)."

Vet School Honors: A new international [ranking of top veterinary universities](#) includes UC-Davis, Cornell, Ohio State, Texas A&M, Iowa State, and several other prestigious universities. The programs at North Carolina State, Purdue, Florida, Missouri, Kansas State, and Mississippi State have also been ranked in recent years by respected surveys.

News from the Far Side of the Barn

Octo-disguise (video):

The mimic octopus [takes camouflage to a whole new level](#).

A Big Buzz (video):

A [bee with a 2.5-inch wingspan](#) and body roughly the size of a human thumb was rediscovered in Indonesia.

Not an Emotional Support

Animal! (video): A woman [found a spotted python hiding in her shoe](#) after a 9,000-mile flight from Australia to Scotland.



This Montana student used his show steer to make a [prom proposal with a bovine twist](#).

"Water Is Local" and So Are the Solutions

CAST presented its 63rd issue paper in Washington, D.C., earlier this week

CAST hosted three events in our nation's capital earlier this week to promote [our newest paper](#) discussing the impacts that draining aquifers have on agricultural irrigation practices.

At these events, the paper's task force chair, Dr. John Tracy, [outlined](#) some of the economic consequences we can expect to see when we deplete our aquifers--along with how mitigation practices will serve those most affected. The takeaway: water is local, and so are its issues. That means the solutions should be, too.

"Groundwater depletion is going to have to be addressed by understanding what the drivers are and what potential solutions are at a local to regional level," Tracy said.

See the [full video](#) of Dr. Tracy's talk and the panel discussion.

Check out [photos](#) from all three events.



Dr. Tracy speaking at the Russell Senate Building.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 ice collage from dailymail.co.uk, farm bill cartoon from collage.jpg, and student photo from drovers.com. Animal Sec. cow pic from agweb.com. Food Sec. student photo from kcur.org and meat pic from sxc.com. Plant Sec. space pic from boeing.jpg and biofuels graphic from futurity.org. Inter. Sec. sun farm pic from mnn.com and pig pic from pbstwing.com. Gen. Sec. phone pic from androidcentral.com and student photo from blogtimesunion.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Range Management and Livestock Sustainability (video): This rancher explains how his [cow-calf operation can convert inedible cellulose to human food](#) through a holistic approach to the management of water, rangeland, and the wildlife that share the land.

Defending the Flock: The USDA launched an outreach campaign focused on [preventing the spread of infectious poultry diseases](#) in both commercial and backyard enterprises.

Global Demand for Protein: Part four of a special *Agri-Pulse* series looks at changes in the protein sector meeting a [growing demand for a wide variety of products](#) around the world and the constant debate about the environmental footprint of meat production.

Livestock and Antibiotics (opinion): This Kansas State professor says the cattle industry and the consumer both [need judicious use of antibiotics](#) in animal agriculture.



Washington dairy farmers who suffered an unprecedented [loss of hundreds of cows during a blizzard](#) are receiving help from the state government.



Research about Swine Fever: Two large science corporations entered into a research collaboration focused on the [development of a rapid African swine fever diagnostic test](#).

Livestock and Gene Editing: Alison Van Eenennaam--UC-Davis professor and [2014 BCCA winner](#)--says that a [ruling may hinder the use of gene editing to introduce useful attributes](#) into livestock. She says this could harm American agriculture and food production.

Cattle Breeding: Planned [crossbreeding systems](#)--using breeds that complement one another--can reduce the cost of maintaining a cow/calf herd, according to Oklahoma State University experts.

Food Science and Safety News

A True "Do Goodr" Group (video): The Atlanta-based organization called Goodr helps [combat hunger by distributing unused food](#).

Food Waste Research (related to above): The authors of the CAST publication [Food Loss and Waste](#) agree with the above project as they state, "Substantially decreasing food waste is attainable. Opportunities exist throughout the supply chain."

Farm-to-school: Two Minnesota lawmakers are proposing a bill that would reimburse school districts for feeding students [healthy, local foods through farm-to-school initiatives](#).

Not So Fast: Despite the addition of some healthful menu items, [fast food is less healthy](#) than ever, according to this report.

Juiced about Celery: Claims calling celery juice a magic tonic are misleading, [according to this dietitian](#). "There is no one superfood."



Nose-to-tail Eating: [Nontraditional cuts of meat](#) are popping up on menus from Portland to Miami--rabbit kidneys with mustard sauce to pig snouts to beef cheeks.

Microbes, Digestion, and More: This book explains how [digestion is a series of encounters with varying microbial players](#) that takes place along the winding 30-foot tunnel of our gastrointestinal tract.



Kansas City middle school students came up with a food [proposal that was accepted by International Space Station](#) officials.

Plant Agriculture and Environmental News

Rising from the Ashes (video): Cal Poly San Luis Obispo architecture students are using their skills to [help fire-ravaged residents of California rebuild](#) in the wake of the Camp Fire.

Controversial Chemical Decision: A court will decide whether or not the EPA has to ban [the use of chlorpyrifos on crops](#) like apples, corn, soybeans, and Christmas trees.

Ethanol Rules: Agriculture Secretary Sonny Perdue says [rules allowing the summertime sale of E15](#) and higher blends of ethanol probably won't be done for this summer. The Renewable Fuels Association reacted with disappointment.

Weed Power (audio included): Illinois weed scientists say that [water hemp is growing resistant to even more herbicides](#).

Plant Power: Metabolism can be divided into three main functions, and this research looks into [why plants metabolize in different ways](#).



It's a Gas, Gas, Gas: An ethanol-producing plant and a Midwest city are extending the agreement to use [methane gas that comes from the municipal landfill](#)--a benefit for taxpayers and the environment.

Corn Growing Techniques: Many expect that planting conditions will be challenging this spring, and these Mississippi State experts provide [information and suggestions for corn producers](#).



A special fertilizer used on the International Space Station is one of many things NASA has developed that [results in contributions to agriculture](#).

International News

Not Just for "Decorating" Statues (video): In Iraq, pigeon breeders have historically had a bad reputation, but that might soon be changing as [the sport of pigeon racing is taking off](#). Top birds can fly at 90 mph, and an elite pigeon sold for \$93,000.

Gene-editing Regulations: Clinical research involving gene editing, gene transfer, and gene regulation could be considered high-risk--and therefore overseen--by China's national cabinet, [if new draft regulations take effect](#).

Biodiversity: This United Nations group says biodiversity is a relatively simple but important concept, and it is important in [achieving global food security](#).

Cassava Crop Threatened: Southeast Asia is the source of 95% of global cassava exports, but a [crop virus in Cambodia could threaten](#) the livelihoods of millions of smallholder farmers.



Using Tech to Fight Illness: China's [hog farm of the future](#) could include a database of every pig's face, voice scans that detect sickness, and robots that dispense feed.



An Australian agriculture group [uses sunshine and seawater to grow food](#) in an arid environment.

Superficial Mini-trend Or Meaningful Change? There are some signs that businesses and manufacturers are [ready to change the way products are packaged](#) and delivered so that single-use plastic is all but removed from the equation.

General Interest News

FFA Program for Hands-on Learning (video): Recognizing the value of agriculture, this [community created an animal science lab in the high school](#)--involving animals ranging from newborn calves to pet kangaroos.

Snow, Dogs, and Friendship (video): Deep snow has affected many this winter, but the load can be lightened [with a little help from a friend](#).

Shoreline Protection: As Earth's climate changes and New York coastal communities face risks from unpredictable waters, Cornell researchers and other specialists are developing a framework to [protect people who live near the shorelines](#).

The Boiling-frog Effect: UC-Davis researchers looked at the [public's perception of climate change](#) and found that most people react to recent weather rather than historical trends.



Open/Alternative Textbook Initiative: The average Kansas State student spends \$800-1,000 [per year for textbooks and classroom materials](#). University officials are working to lessen these costs.

Busy! Statistics indicate that 75% of graduate students also work at least 30 hours a week, and North Carolina State is [highlighting some of these CALS multitaskers](#).



This techie takes a look at one of the most advanced models of the "[foldable phone](#)."

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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- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * Land O'Lakes
- * Bayer

- * 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
- * Rural Sociological Society
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- * Soil Science Society of America
- * Syngenta Crop Protection
- * The Fertilizer Institute
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- * Tyson Foods
- * United Soybean Board
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