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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.

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Penguins in Flight



Penguins [leap out of the water](#)--gracefully or not--and scurry to their winter homes.

Ag and Tech

Registration is open for *Farm Journal's AgTech Expo*--Dec. 11 to 13--in Indianapolis.

Youth and Agriculture

[Youth involvement in agriculture](#) seems to be increasing in the United States and internationally--



including Dr. Adesina's work with young people in Africa.

Consumer Research

Led by Dr. Jayson Lusk--Purdue professor and the 2017 BCCA

December 8, 2017

From the Ground Up

World Soil Day emphasized this crucial resource

World Soil Day 2017 was on December 5, but soil is important every day. The United Nations' Global Soil Partnership is using the theme "[Caring for the Planet Starts from the Ground.](#)" They point out that soil is a finite natural resource, and there is a



Every day is World Soil Day

worldwide increase in the degradation of soil--due to inappropriate management practices, population pressure driving unsustainable intensification, and inadequate governance over this essential resource. This editorial says that the best way to [avoid catastrophic climate change](#) may lie in the soil beneath our feet. Many organizations--such as the [Soil Science Society of America](#), the [American Society of Agronomy](#), and the [Crop Science Society of America](#)--work hard to take care of this crucial building block of life.

News and Views

Fires Sweeping through Southern California: Relentless wind-whipped [wildfires have been ravaging Southern California](#)--with thousands forced from their homes.

winner--a research team will use a [FFAR grant to study consumer understanding and purchasing](#).

Student's Winning Video

A high school senior [won the GMO Innovation Contest](#) with a video about Vitamin A deficiency and corn production.

Ag Publication

A University of Arkansas agricultural communications graduate has self-published a book [showcasing agricultural production](#) and the traditions behind it.

CAST Social Media



Click here for [links to CAST sites](#):

Twitter, Facebook, LinkedIn, Pinterest, videos, and blogs.

Tech Trends in Ag: This article [looks at sensors](#), data gathering, and precision farming. This editorial says three main [obstacles keep robots and AI](#) from going to the next level. And this web page lists forthcoming papers from CAST's [Ag Innovation series](#).

Tech, Toys, and Farming: Speaking of tech, see what happens [when a farmer asks Alexa to order farm toys](#).

Egg Regulations in Court: A dozen states are going to the U.S. Supreme Court to challenge California's law [requiring egg producers from other states to comply](#) with California farming regulations.

Wendell Berry Still Rages against the

Machines: One of America's best-known farmer-philosophers [warns that our disregard for the past](#) points us in a destructive direction.



Alexa, do you believe in Santa?

News from the Far Side of the Barn

Performing a Root Canal on a Lion (video): The Exotic Feline Rescue Center in Indiana uses volunteer [medical experts to care for the big cats](#).



Want a Screaming Hairy Armadillo around the House? A group of

scientists ranked the [25 animals that make the best pets](#)--but they are not the usual dog cat parakeet-type creatures.

I think I have an antelope bone stuck in my back molar.

2017 CAST Annual Board Meeting

Follow along as we reminisce about our trip to Raleigh

The 2017 Annual Board meeting took place in Raleigh, North Carolina, on October 25-27, 2017. This three-day CAST event consisted of various governing boards gathering for meetings, industry tours, guest speakers, and breakout sessions. Several noteworthy speakers addressed the group with similar messages regarding the importance of effective science communications. A special highlight was the "passing of the gavel" from Richard Cavaletto to Nancy Reichert as the 2017-2018 CAST President. At the end of the meeting, Todd Peterson and Don Beitz were acknowledged for their many years of service to the Board of Directors as their terms expire.

If you weren't able to attend this year's meeting, take a few minutes to watch this video that gives a brief overview of all that took place in Raleigh and mark your calendar for next year's trip to Sacramento, California!



Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 penguin pic from de.fotolia.com, soil pic from nationofchange.org, pic of Adesina and group from afd.org, and lion pic from news.com.au.jpg. Animal Sec. sheep pic from buzzfed.jpg. Food Sec. tiny food pic from cbsnews.com. Plant Sec. fungi pic from sanpaulouniv.brazil. Inter. Sec. coral pic from superjumbo.jpg. Gen. Sec. cartoon from wsj.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



Animal Agriculture and Environmental News

Holiday Pet Precautions (video): [Could your Christmas decorations be making your pet sick?](#) Take the appropriate precautions this holiday season to keep your furry friends happy and healthy.

Beef Grade Update: [U.S. beef grading standards will be updated](#) to allow companies to use age documentation to verify cattle that are less than 30 months old.

Livestock Emissions Study: A new Penn State [study of methane emissions from livestock](#) in the United States challenges previous top-down estimates.

Pigology 101: In this community college course, [students in swine production](#) take care of the pigs. They would rather be in the barn than in the classroom.

Beef Quality Assurance: This Purdue/Texas A&M article looks at the [Beef Quality Assurance program's](#) successes and goals.

Hog Industry Workforce: According to this distinguished Iowa State professor, [human capital has long been a challenge](#) for the protein sector overall and even more so now for hog production--both within industry and academia.

Omega 3-enriched Meat: Kansas State research confirms that the omega 3-enriched beef and pork a Nebraska [farmer was selling is healthy and tasty](#). Watch for a CAST Special Publication in 2018--*Omega-3 Fatty Acids: Health Benefits and Dietary Recommendations*.



Happy to see you? This study says [sheep have the ability to recognize familiar human faces](#).



Food Science and Safety News

Meatless Meat Demand: Economists state they see [little-to-no impact of cultured meat on animal protein food products](#) in the foreseeable future.

"Best By" or "Best Not"? (opinion): This article says certain foods can be eaten past their "best before" date without any problem--and it lists [some that should not be tried](#).

Biotech Gluten Free? This scientist says [low-gluten wheat produced by gene editing](#) could be eaten by coeliacs.

The Mystery of Milk: [What do milk fat percentages mean?](#) While the amount of fat may vary, all cows' milk contains the same nine essential nutrients.

Metabolic Health and Diets: Texas A&M experts are studying why a standard diet doesn't work for everyone in a paper titled [Improving Metabolic Health through Precision Dietetics in Mice](#).



The "Tiny Kitchen" video series features real [food made in real miniature kitchens](#). Maybe this is the way to succeed at dieting!



Plant Agriculture and Environmental News

The State of Corn: These graphs of the [U.S. corn supply and its uses](#) look at 2017 statistics and 2018 projections.

Biologicals: These infographics explain [what biologicals are and how they benefit farmers](#).

Strawberry Solution: Experts--including the University of Florida's Kevin Folta--show that a [transgenic approach can defeat strawberry pathogens](#) rather than fungicides/antimicrobials.

Golden Rice: [The first field trial of golden rice in Bangladesh has yielded promising results](#), triggering the prospect of the vitamin A-rich grain's release as early as 2018.

Rice Genetics: The Foundation for Food and Agriculture Research awarded a \$1 million Seeding Solutions [grant to the University of California-Davis](#) to study the genetics of rice plants.

Topcon Technology: This new sprayer technology is said to [help farmers manage drift more effectively](#).



This glowing fungi is nothing compared to a Mississippi State Univ. claim that the [largest terrestrial organism on the planet](#) is a honey fungus.



International News

Cancer-sniffing Dogs: Dogs that detect cancer are a hit in Japan. Experts hope to make the [noninvasive health checks widely available](#) across the country.

FrogID--An App Kermit Might Like: Australian scientists hope that crowd-sourced mapping could lead to the [detection of new species of frogs](#).

Pass the Tapeworms: From drinking only alcohol to swallowing tapeworms, fad diets have been popular for centuries. This Australian news story looks at [why fad diets are not fading away](#).

Climate-smart Technology (video): As climate conversations continue, [these ten stories of climate-smart agriculture](#) show how farmers cross the globe are benefiting.

Smart Land Acquisition: Tanzania's answer to land grabbing is a [plan for sustainable, socially inclusive agricultural growth](#) that hopes to raise the productivity of 350,000 hectares during the next 20 years.

IPM for Vietnam Fruit: This [project in Vietnam](#) focuses on the integrated pest management (IPM) of four key economically important crops--dragon fruit, mango, longan, and lichi--for export to markets in the USA.



You'll [need scuba gear to see](#) some of nature's best Christmas decorations.



General Interest News

Ag Research Affected: The [devastation on Puerto Rico](#) affected many families, businesses, and agriculture projects--including seed research.

Veterinarians Wanted: Farmers and public health officials are growing increasingly concerned with a [shortage of food animal veterinarians](#) in Iowa and across the country.

What's Your Water Footprint? Your habits, choices, and even your diet affect your water footprint. [This interactive calculator helps you estimate your total water use.](#)

Snapper Research: Two University of Florida Institute of Food and Agricultural Sciences researchers will be part of a \$10 million project to [estimate the number of red snapper](#) in the Gulf of Mexico.

Urbanites Go Farming: A growing movement of highly educated, ex-urban, first-time farmers are capitalizing on booming [consumer demand for local and sustainable foods.](#)

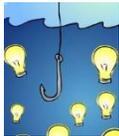
Making Changes: This organization [recommends eight climate actions](#) we can perform to help better our world.



"E-I-E-I-O"--The [top ten things urban grandkids do](#) when they visit the farm.

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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Contact Colleen Hamilton at 515-292-2125, ext. 224 or chamilton@cast-science.org, or [CLICK HERE](#) for CAST membership information.

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- * American Farm Bureau Federation
- * American Meat Science Association
- * American Meteorological Society, Committee on Agricultural and Forest Meteorology
- * American Seed Trade Association
- * American Society for Nutrition Nutritional Sciences Council
- * American Society of Agricultural and Biological Engineers
- * American Society of Agronomy
- * American Society of Animal Science



- * American Society of Plant Biologists
- * American Veterinary Medical Association
- * Aquatic Plant Management Society
- * BASF Corporation
- * Croplife America
- * Crop Science Society of America
- * DuPont
- * Elanco Animal Health
- * Entomological Society of America
- * Innovation Center for U.S. Dairy
- * 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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