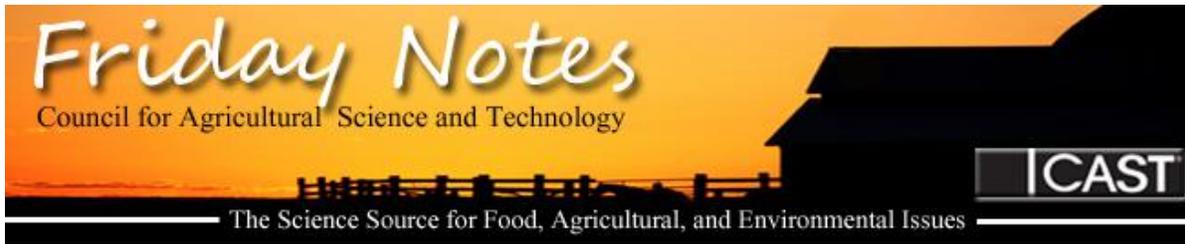


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*Friday Notes* is designed to enhance communication among various agricultural sectors, educators, students, and the public who are interested in a variety of plant, animal, food, and environmental issues. *Friday Notes* advocates the pursuit of credible, 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](#)

[Agricultural March Madness--P. 2](#)

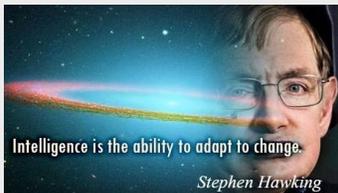
[Animal Agriculture News](#)

[Food Science and Safety News](#)

[Plant and Environment News](#)

[International News](#)

[General Interest News](#)



"Remember to look up at the stars, not down at your feet."

- Stephen Hawking

This video examines the [inspirational life of the acclaimed physicist.](#)

#### CAST and Ag Week

With an issue paper rollout and other events, CAST will join with Ag Week activities in Washington, D.C. [Check here](#) and on page 2 below.

#### Animal Ag and the Environment

Frank Mitloehner of UC-Davis will [debunk myths about animal agriculture's environmental impact](#) at the Animal Agriculture Alliance's 2018 Stakeholders Summit--May 3 and 4 in Arlington, Virginia. Dr. Mitloehner was on the task force for the CAST publication [Air Issues Associated with Animal Agriculture.](#)

#### FFA Goes L.A.

March 16, 2018

## Planting Season Matrix

*More than just tossing out a few seeds*

With spring approaching, farmers in the Northern Hemisphere are preparing to plant the crops that supply food for an increasing global population--and these producers will call on the latest research and innovative tech ideas to help with the process.



Cross a John Deere with a Roomba and you get this [crop-monitoring agribot](#) that could change farming.

Field robots are tangible examples--but behind the scenes, much is happening with biotech, chemical, and environmental advances. This blog looks at the "[optimism of sowing seeds](#)" no matter what form it takes, and the following stories and publications give some insights into the changing world of plants and agriculture.

\*\* Farmers have turned to biotech crops to help combat crop loss and subsequently use fewer natural resources like water and land. This special issue addresses key concepts relating to [the use of GM crops in animal feed](#)--check out the top 5 stories.

\*\* Growing genetically modified, insect-resistant corn in the United States has [reduced insecticide use](#) and created a "halo effect."

\*\* Kansas State researchers discovered how [weeds develop resistance to glyphosate](#), and this could have broad implications.

\*\* A Foundation for Food and Agriculture Research grant will fund a study to examine [possible impacts on pollinators from strips of prairie](#) planted in crop fields. [Click here](#) to access the CAST Commentary about "[why bee health matters.](#)"

\*\* Two recent CAST Issue Papers cover important crop information. Check out the Ag quickCAST versions of the "[crop protection](#)" and "[plant breeding and genetics](#)" publications.

## News and Views

The winner of the 2017 National FFA talent competition is still singing--this time for an [American Idol golden ticket](#).



### Student Leaders

Congratulations to [6 of our member university students](#) for being selected to lead and represent the Agriculture Futures of America (AFA).

### Science Talk

This blog addresses ways to write data-driven, engaging stories that will grab attention, create stronger connections, and motivate action. [Click here to learn more.](#)

### Send 'Em In

[Click here to submit an idea](#) for a CAST publication.

### Free Ag Resources

[Check out these downloadable](#) activities, lesson plans, and other agricultural education materials.



### CAST Social Media

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

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

**Protein Boost:** This could be a [record year for meat consumption](#) in the United States, as consumers say they are seeking protein.

**Negotiations Snapped?** The Farm Bill seems to be facing an [impasse about the Supplemental Nutrition Assistance Program](#). Check here for a [brief update to this story](#).

**Nixing the OLPP:** The USDA announced the decision to [withdraw the Organic Livestock and Poultry Practices \(OLPP\) final rule](#). It would have increased federal regulation of livestock and poultry for certified organic producers and handlers.

**Big Picture Perspective:** The [USDA gazed into its crystal ball](#) in February and released its first round of production estimates for 2018.

## News from the Far Side of the Barn

### Beware of the

**Familiar:** Researchers say the animals that most often kill Americans are [not the phobia-inducing usual suspects like sharks and snakes](#)--think bees, dogs, horses, and cows.



### Cry Wolf (related to story in caption at right)

: Imported guard dogs might be deployed in the United States to [protect sheep farms from wolves](#).

**Robot in Wolf's Clothing: A [robot wolf designed to protect farms](#)--especially from wild boars--has proved to be such a success in trials that it is going into mass production.**

## Agricultural March Madness

*March celebrates food and the future of agriculture*

"To be interested in food but not food production is clearly absurd."  
- Wendell Berry



Whether it means a day off work or just an excuse to celebrate, Americans love their holidays. While everyone is familiar with Christmas, Easter, and Thanksgiving--to name a few--there are numerous less-than-famous holidays celebrated every day. Three celebrations during the month of March that the Council for Agricultural Science and Technology finds important are [National Nutrition Month](#), [National Ag Week](#), and [National Ag Day](#). CAST's latest blog highlights the importance of these celebrations along with [ways that you can join in on the fun](#).

This year, [CAST will be doing our part in honoring National Ag Week](#) with the rollout of our latest issue paper--*Regulatory Barriers to the Development of Innovative Agricultural Biotechnology by Small Businesses and Universities*--in Washington, D.C., on March 22-23. This event is free and open to the public. [Click here for more information](#). We would love to see you in attendance.

What can you do to help advocate for agriculture throughout the week? Put simply, get involved! Your participation is critical in helping spread a positive message about agriculture. [Visit this website for](#) Ag Day tools and resources.



## Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 Hawking photo from hrexach.wordpress.com, agbot pic from youtube.com, and wolf robot pic from bbci.co.uk. P. 2 graphics from agday.com. Animal Sec. pig pic from dailymail.co.uk. Food Sec. gardening pic from ecowatch.jpg. Plant Sec. parrot pic from youtube.com. Inter. Sec. horse pic from sciencemag.org. Gen. Sec. Grand Canyon pic from grandcanyonwest.com. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service.



### *Animal Agriculture and Environmental News*

**Poultry Partnership:** Mississippi State University and the Nebraska College of Technical Agriculture announced a partnership designed for [students interested in pursuing a degree in poultry science](#).

**Dairy Safety Net:** The National Milk Producers Federation is urging the USDA to reopen 2018 enrollment for [the Margin Protection Program](#).

**Animal Testing and Chemicals:** The EPA laid out a multiyear process to identify [alternative methods to reduce certain animal testing](#) in evaluating chemicals.

**Will We Have One Hour Less to Produce Milk?** This dairy farmer writes about [bovine sleeping habits](#)--and their reactions to Daylight Saving Time. And this blog looks at [cow night walkers and waterbeds in the barn](#).

**Sow Stall Use:** An Ohio State expert discusses practical farm experience when making the [transition to group housing for sows](#).

**Biobeef Blog:** Alison Van Eenennaam's popular blog site delves into many [topics about animal agriculture](#)--a recent one looks at "Antibiotic Use and Food Animals."

**Cornstalk Calves:** According to University of Nebraska research, summer-born calves wintered on cornstalks have lighter weaning weights than those wintered in a dry lot, but [they catch up in the feedlot](#).

**Pork Pod (includes audio):** This National Pork Board podcast highlights the Pork Checkoff's [investment in human nutrition research](#)--including a look at the popular DASH diet.



**Tempest in a Teacup: Miniature pigs are big business--and they can be big problems.**



## Food Science and Safety News

**Grocery Store Wars (video):** Intense competition among big marketers [means increased deliveries and lower prices](#). Some say 70% of shoppers will be buying groceries online by 2024.

**Fighting *Listeria*:** Researchers from North Carolina State identified compounds that may be [effective in containing the virulence of \*Listeria\*](#), a bacterium that can cause severe food poisoning and death.

**Diet Confusion (opinion):** The whole concept of ranking weight loss diets is a distraction, according to this doctor--"[eat less than what you burn](#)."

**Agrotechnology Transfer:** More than 30 scientists came to the University of Florida earlier this year to help develop new [prediction models for producing crops](#) in developed and developing countries.

**The Future of Food:** [Bug burgers, algae buns, and herb ice cream](#)--three innovations Ikea and Space10 believe might turn into a snack for future generations.

**Hugely Hydrating Foods:** It's important to drink plenty of water--but you can also quench your thirst with food. This North Carolina State professor weighs in on [how processing may affect the produce's nutrient content](#).



A New Jersey company says its new vertical farming facility will be the [most technologically sophisticated indoor farm](#) in the world.



## Plant Agriculture and Environmental News

**Satellite Imagery (video):** This farmer turned technological pioneer is [working to help farmers better understand their fields](#) through space-age technology.

**Rebound in the Bay? (opinion):** This report says there is a long-term trend of increasing [seagrass cover in the Chesapeake Bay](#)--a result of reducing pollution such as phosphorus and nitrogen.

**Denitrifying Bioreactors (related to above):** According to a paper from several respected soil/agronomy organizations, there is [interest in adapting denitrifying bioreactors](#) to mid-Atlantic drainage systems to help address Chesapeake Bay water quality goals.

**Cotton Seed Breakthrough (video):** Texas Tech researchers have developed a cotton seed that could result in [more efficient ginning and better quality fibers](#).

**A Fresh Look:** Explore GMO farming by getting to know [the facts behind your food](#) from farmers, moms, and scientists in this interactive website.



Some Like It Hot: Iowa State researchers explore the [mutually beneficial relationship between birds and chili peppers](#).



## International News

**China Pulls Back (video):** The U.S. Meat Export Federation reported that [the key to profitability in the pork industry](#) relies on finding a home for variety meats.

**Two Sides of Ag in Holland (opinion):** Dutch agriculture has been praised for its efficiency, but this writer says high-input agriculture is [taking a toll on the environment](#).

**Dairy Delivery--by Air and Sea:** More than [three thousand Holstein cattle](#)--bred in California, Arizona, and Wisconsin--will go to Qatar by ship and join the thousands that were airlifted in last year.

**Potato Blight and Famine:** Ireland's disastrous famine in the mid-1800s was sparked by a potato blight. This article looks at scientific factors that contribute to the spread of fungal disease--and [how to prevent such tragedies](#).

**Award-winning Student Research (related to above):** A New York student's research about the devastating microorganism that caused the Irish Potato Famine [could prevent massive crop loss](#).

**Diet and Alzheimer's:** A diet high in protein-rich foods such as meat and legumes [reduces the risk of developing Alzheimer's](#) disease, according to university research in Australia.



An Argentinian [polo star has a stable full of cloned horses](#)--all of similar temperament and skill as the original champion pony. Some people are opposed to such cloning tactics.



## General Interest News

**Tractor Meets the Tracks (video):** This video [shows a huge collision between](#) a fast-moving train and a tractor being delivered on the bed of a semi.

**Baby Beluga Rescue (video):** A team of veterinarians went into overdrive when they [found a beluga whale calf separated from its mother](#).

**Stem Skills:** Here is a list of five things parents can do to [help develop STEM skills in young children](#).

**Fake News:** A new [study found that false news spreads more rapidly](#) on Twitter than real news does--humans are at fault, not robots programmed to disseminate inaccurate stories.

**Missing Monarchs:** Experts say [the number of monarch butterflies](#) that overwintered in Mexico's forests fell for a second straight year.



Hop on 3,500 feet of zipline, hit speeds of more than 40 miles an hour, and [see the Grand Canyon in an adrenaline rush](#).

You Have What in the Fridge? Matt Parker lists the top 10 [items you probably won't find in town folks' homes.](#)

## 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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- \* Agricultural & Applied Economics Association
- \* American Association of Avian Pathologists
- \* American Association of Bovine Practitioners
- \* American Bar Association, Section of Environment, Energy, & Resources-Agricultural Management
- \* 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
- \* 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
- \* DowDuPont
- \* 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



*CAST assembles, interprets, and communicates credible, science-based information regionally, nationally, and internationally to legislators, regulators, policymakers, the media, the private sector, and the public.*

## Members of CAST's Education Program

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- \* Mississippi State University
- \* North Carolina State University
- \* Texas A&M University College of Ag & Life Sciences
- \* The Ohio State University
- \* University of Arkansas System Division of Agriculture
- \* University of California-Davis
- \* University of Florida Institute of Food and Agricultural Sciences
- \* University of Kentucky
- \* University of Nebraska Agricultural Research Division
- \* University of Nevada



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\*\* *With assistance from Carol Gostele (Managing Scientific Editor)*