An App to Organize Our Apps

According to this BBC report, science provided plenty of positive stories in 2016—from gene editing to fighting deadly diseases.

The world of agriculture also continues to be affected by tech and innovation. These 17 ag apps claim to help with scouting fields, managing agronomic data, creating farm maps, and many other precision jobs. Sounds good—but considering the barrage of innovative options, some think an Alexa-like technology might be needed ("Alexa, what is the future of farming?" "I am."). On the other hand, this blogger looked in a different direction as his old-fashioned Dad App organized him on the farm.

Many farmers are just figuring it out the best they can. This Michigan farmer has followed the developments, and he wonders about cost, efficiency, and relevance. And in the end, he even gets a bit "Luke Skywalkerish." He pictures a farmer guiding a fleet of robotic helpers in the fields, communicating with each other and with a base computer. "The sky is kinda the limit with what we can do with technology."

News and Views

**Ag Secretary Position—Looking Back and Thinking Ahead:** While the farm community speculates about who will be the new Secretary of Agriculture, this writer claims that the most interesting person to hold the office was Henry Wallace: "... not only the most talented of agriculture’s leaders, but also the craziest."

**Departing Words:** Agri-Pulse spoke with Agriculture Secretary Tom Vilsack. "Agriculture is diverse; let’s celebrate all facets."
two-week learning program for graduate students attending U.S. institutions--application deadline Febr. 17, 2017.

2017 World Food Prize Nominations
Nominations for the 2017 World Food Prize are now open.

4-H and American Farm Bureau Link
Leaders of the National 4-H Council and the American Farm Bureau Federation announced a newly established partnership.

Societies and CAST
In 1971, representatives of 16 scientific societies met to discuss the new organization and decide on a name: Council for Agricultural Science and Technology (CAST). In 1972, the organization was chartered as a nonprofit (access CAST’s history site here).

CAST Social Media
Click here for links to CAST sites: Twitter, Facebook, Pinterest, LinkedIn, videos, and blogs.

**A Year of Big Stories:** From a surprising election to mega mergers to chemical drift, these "top stories from this past year" were compiled by the Successful Farming team.

**Feeding Human Progress--a Tribute on Film:** Land O'Lakes, Inc., used a poem by Amelia Barr and some impressive filming to create this tribute to the agriculture community.

**Ag Expert Working Hard and Playing Hard:** Alison Van Eenennaam (UC-Davis) demonstrates the difficulty of analyzing and critiquing published papers. As she admits, "As with most everything in agriculture, there are no simple sound-bite answers." And in this video parody, she has fun with the selfie craze by showing "scifies" of female plant and animal breeders from around the world, emphasizing the important role women play in this field. Note: Dr. Van Eenennaam won the 2014 Borlaug CAST Communication Award.

**News from the Far Side of the Barn**

**Hero Whales (videos):** Researchers have observed humpback whales defending smaller sea animals from killer whale attacks. The battles often last for hours, and the humpback whales apparently do it for altruistic reasons.

**Giant Panda 1, Snowman 0 (video):** This panda decided that there was room for only one big, cute personality in its cage.

**That Time When You'd Rather Have a Lump of Coal:** A woman in Australia discovered a meter-long venomous snake wrapped around her Christmas tree.

Dr. Flis Joins Board of Representatives
The Fertilizer Institute part of CAST community

Sally Flis will represent The Fertilizer Institute (TFI) on the CAST Board of Representatives (Plant Agriculture and Environmental Issues work group). Dr. Flis was recently hired as the director of agronomy at TFI. Their mission is to represent, promote, and protect the fertilizer industry through the following strategies:

- foster a prosperous fertilizer industry through legislative and regulatory activities at the federal, state, and local levels
- address issues impacting TFI member companies
- share knowledge with members, government, and the agriculture industry on issues related to fertilizer and the farm economy

The CAST community welcomes Dr. Sally Flis and The Fertilizer Institute.
Latest CAST Publication Gets Wide Notice

Paper examines biotech crop approvals and trade disruptions

CAST’s “report and review” about biotech crops and the effects of certain trade situations garnered plenty of interest in the press and with government officials. The paper and a Mandarin Chinese translation are available on the CAST website: The Impact of Asynchronous Approvals for Biotech Crops on Agricultural Sustainability, Trade, and Innovation (access the paper here). The link also includes a video presentation of the December 8 rollout session cohosted by the U.S. Biotech Crops Alliance at the American Farm Bureau Federation Building (CAST introduction from Kent Schescke: 0:00-09:25; presentation of report by Nicholas Kalaitzandonakes: 09:26-39:49; panel discussion and Q&A: 39:50-1:26:03).

The report and its subsequent distribution pulled in numerous hits on CAST social media avenues such as Twitter and Facebook—and hundreds of downloads from the CAST website. CAST Director of Operations Melissa Sly reports the following statistics that come from the original press releases:

- 3,105 press release “reads”
- 84,285 headline impressions (amount of times the article was retrieved through SEO searches)
- 1,544 media deliveries

Friday Notes News Categories

Animal Agriculture and Environmental News

Something Fishy on Midwest Pig Farm (video): A thousand miles from the ocean, this Iowa farm raises barramundi for seafood markets and restaurants across the country.
Not Quite Ready for Olympic Dressage (videos): A New Zealand girl who didn't have a horse growing up has taught her cow to jump instead (scroll down in the article for videos).

GFI #213--USDA Antibiotic Ruling: A key plank in the FDA's platform to slow down the development of antibiotic resistance and extend the life of medications important to humans and animals is in place.

Explaining the Pig Priority: The 2016 Pig Farmer of the Year says farmers and ranchers need to do a better job of showing what they do--especially since most pigs are raised indoors.

Planning for Avian Flu: The USDA is updating its National Poultry Improvement Plan to participate in a compartmentalization program for highly pathogenic avian influenza.

Pigs, Chickens, and Orchards: On this England farm, pigs and chickens are used to control insects and weeds in their certified organic orchard and berry patches.

Meat on the Move? Rabobank expects that 2017 will see a record pork volume shipped to China--with beef and poultry imports there also on the rise.

Beefy Facts: This site provides 50 links to facts and information about global beef—including production, consumption, and trade.

Meat Processing Collaboration: The Quapaw Tribe is building a meat processing plant in Oklahoma, and faculty from the University of Arkansas are assisting with design and construction.

Married to Their Work: This husband-and-wife team are part-time farmers and full-time veterinarians in South Dakota. They blog to relay their experiences about farming, herd health, and marrying another vet.

Food Science and Safety News

Holy McSacrilege? (video): A lawsuit is being filed to block a McDonald's restaurant from continuing to operate in Rome, because it is located near the walls of Vatican City.

Mindset about Waste: Diners waste less food when they learn about the harm it can inflict on the environment. But if they know the food is going to be composted, the educational benefit disappears.
Creative about Waste (related to above): Much wasted food perishes between the farm and the supermarket shelf. This initiative aims to change our food system by inspiring innovation and collaboration.

Food Safety in a Time of Change (opinion): According to this analyst, food safety efforts in 2017 will face storms and stability—with key factors being "complicated bureaucracies" and governing transitions.

Collaborating for Food Security: This University of Florida ag expert explains how to get more food from less land—with productivity that relies on innovation from industries, farmers, and land-grant universities.

From All-day Breakfast to Pizza-stuffed Crust--Seven Success Stories: Fast-food chains constantly try new ways to entice hungry customers; some fly, some flop, and some become standards for the industry.

Fruits, Vegetables, and Heart Health: The FDA is amending a regulation to allow more fruits and vegetables to carry a health claim that they reduce the risk of coronary heart disease.

Power Food Combos: According to Men's Health magazine, you can combine the right ingredients and your food becomes even more nutritious (and delicious).

Fries, Frites, or Chips: Whatever you call them, fried potato sticks are universally beloved, and this site provides several facts about fries.

Plant Agriculture and Environmental News

Data, Research, and Food Security (video): This Ohio State University researcher uses data to help with food security in east Africa—specifically focused on cassava plants damaged by fly infestation.

Environmental Techniques (opinion): These farmers are using precision ag techniques, cover crops, buffer strips, and GMO crops to clean up the Chesapeake Bay area.

High on No Till (related to above): A switch to a no-till cover crop system changed this farmer's management dynamic and provided a booster shot to weed control, irrigation efficiency, and overall soil health.

Pass the Salt: According to this blog from the Soil Science Society of America, salt melts ice on roads and walkways—but when overused or mismanaged, it can become a serious environmental pollutant.

Biosensor and Pesticides: These university scientists helped create a flexible, low-cost, disposable biosensor that can detect pesticides in soil.

This Noxious Weed Is Clever: Palmer amaranth seed has many ways of reaching new farms—from poorly cleaned equipment to "fertilizer-ready" duck excrement.

USDA Grant for Wheat Research: Scientists from several universities—including Nebraska, Texas A&M, and Kansas State—will work to develop higher-yielding lines of hybrid wheat.

More Wheat Research (related to above): An international research project—headed by a UC-Davis geneticist—is using new technology to identify wheat genes that impact yield.
International News

Smoke Gets in Your Eyes (video): Beijing has been afflicted by heavy smog in recent days, and a resident captured this time-lapse film of a thick smog cloud rolling through the city over the course of 20 minutes.

Challenging Traditions and Making Good Sushi (video): These women are challenging the myth that sushi making is exclusively a man's world.

Water Woes--Preventing Death and Suffering? More than a billion people around the world have little or no access to fresh water, and some hope high-tech ag might provide solutions.

Going Green in a Big Way: According to this report, Costa Rica ran entirely on renewable energy for more than 250 days last year.

Pangolin Face Extinction: Chinese officials seized tons of illegally trafficked pangolin scales from a port in Shanghai--their meat is a delicacy, and their scales are used in traditional Chinese medicine.

Claims That the "Wurst" Offenders Mislead Consumers: Germany's agriculture minister defended meat lovers by calling for a ban on names such as "vegetarian schnitzel" for meat-substitute products.

Possum Burgers? Horse, possum, camel, and donkey will be available from South Australian butchers soon if recommended changes to food safety regulations are adopted. Some groups oppose this.

12 Urban Ag Centers: The international community is beginning to recognize the integral role of urban agriculture in improving the economy, environment, and health of cities.

Preserving Kenya's Forests: The Ogiek tribe is trying to revive the Mau Forest of Eastern Kenya by planting new trees and working with the Kenya Forest Service.

General Interest News

Surfing Wipeout? Surfing the internet in class is now linked to poorer test scores--even among the most intelligent and motivated of students--according to this Michigan State University research.
**Why Put a GoPro on a Cow? (video):** This media expert provides tips for making a good farm video.

**A Mighty Wind?** This Iowa State University study says turbulence created by wind turbines may help corn and soybeans by influencing variables such as temperature and carbon dioxide concentration.

**Tiny Bugs, Hungry Pigs, and Savvy Investors:** This Bloomberg’s end-of-year assessment for agriculture investors looks at those who made winning decisions because of tiny bugs and hungry Chinese pigs.

**It's in the Bag (opinion):** Michigan became the fourth state to place a ban on banning plastic bags—and some are unhappy about the laws.

**Ag and Local Economies:** This Mississippi State University agricultural economist explains the positive effects of the ag industry on local economies.

"Fantasy Football" with Crops and Livestock: Fantasy farming is a game that gives high school students a chance to learn firsthand about the guesswork and gambles that farmers make every year.

**Easing the Fire Ant Problem:** A new test kit, developed by USDA scientists, could limit the spread of red imported fire ants—the insects cost Americans $6 billion annually to control and repair damage.

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**CAST Information**

Check out CAST’s page at the [YouTube site](https://www.youtube.com) 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."

CAST provides Friday Notes as a benefit to its members. Please do not forward, edit, copy, or distribute the Notes in any form to nonmembers without the express permission of the CAST Executive Vice President Kent Schescke (kschescke@cast-science.org). Instead, please encourage your colleagues to join CAST and thereby become eligible for all membership benefits. 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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**Societies, Companies, and Nonprofit Organizations Serving on the CAST Board of Representatives**

- 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 Society for Nutrition Nutritional Sciences Council
- American Society of Agricultural and Biological Engineers
- American Society of Agronomy
- American Society of Animal 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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* University of California-Davis
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* University of Kentucky
* University of Nebraska Agricultural Research Division
* University of Nevada

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