When Bad Things Happen to Good Science

According to the International Food Information Council (IFIC), “Science is about objective analysis, independent questions, and nuanced answers.” As we all know, the Dr. Jekyll of credible science can transform into the Mr. Hyde of junk science when it is released to the public. If not properly handled, good research can become “… a disorderly swarm of bias, groupthink, and black-and-white assumptions.”

CAST assembles, interprets, and communicates credible, science-based information, so we appreciate articles that help the public steer clear of Mr. Hyde. Click here to access the IFIC report titled When Food Facts Devolve into Science Fiction.

News and Views

** Unfolding Story—WOTUS: ** The U.S. House of Representatives passed a disapproval resolution that would eliminate the "waters of the United States" (WOTUS) rule, but it faces a probable veto.

** An Ag "Call to Action": ** The organization known as AGree seeks to drive positive change in food and agriculture systems. It has posted a "Call to Action" that asks presidential candidates to state policies that will improve the health of America’s families, economy, farms, and environment.

** Ag Economy Challenges:** For some, the farm boom has fizzled, as U.S. crop surpluses expand and financial strains set in.

** A Pesticide Cocktail of Articles: ** The recent USDA Pesticide Data Program Report confirms that pesticide residues are not a food safety concern for the United States. Meanwhile, the EPA says that one type of neonicotinoid is harmful to bees; this article from Bayer Crop Science...
Student Grant Application

The U.S. Borlaug Fellows in Global Food Security supports exceptional graduate students interested in creating a component of their research in a developing country.

New Farm Bureau Leader

For the first time in 16 years, the American Farm Bureau Federation has elected a new president. Zippy Duvall is a lifelong dairy farmer from Georgia.

Understanding Ag

The U.S. Farmers and Ranchers Alliance (USFRA) launched a new foundation with a mission of furthering agricultural education.

Ag Education

This report looks at the ag teacher situation in the United States and ways farmers and ranchers can reach out to young people.

CAST Social Media

Check the popular CAST Catch of the Day here and the CAST blog here.

addresses that report. It can all get confusing, so this blogger looks at the hornet's nest created by conflicting bee health reports.

In related news, the EPA entered into a cooperative agreement, the "Pesticide Educational Resource Collaborative," with the University of California-Davis to study the safe use of pesticides. The CAST issue paper titled The Contributions of Pesticides to Pest Management in Meeting the Global Need for Food Production by 2050 adds further information to this topic.

News from the Far Side of the Barn

Modern Falconry (video): This experimental drone can hunt with a net and haul things away.

Water Bears--Cute, Tough, and Microscopic (videos): Biologists have been studying the tardigrade--a fascinating microscopic creature some call water bears.

Automated Sushi Maze (video): Have a look at the fascinating scheme used to provide conveyor belt sushi to hungry customers. By the way, as reported a few months back, sushi cat (pictured at right) would probably take sushi no matter how it's served.

Aggie Power

Universities with agriculture-based programs dot the country, and twelve of the best belong to the CAST education program. Ag-related careers are a hot item now, and these schools produce graduates in many different food, plant, and animal fields of study.

Friday Notes regularly links to articles about programs, people, or happenings that make these schools special. Such stories appear throughout the newsletter, and here are three examples:

*The University of California-Davis highlights six students who put on their boots and their hats--or maybe their gloves and their lab goggles--to
explore the working world of agriculture.

*Texas A&M specialists produced six publications analyzing the water use of the crop and livestock industry in the Southern Ogallala Aquifer region.

*North Carolina State University's Plant Sciences Initiative hopes to develop greater profits, higher yields, and a brighter future for North Carolina's young people.

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**Friday Notes News Categories**

* Fermal swine cost the Florida cattle industry at least $2 million a year.

* Battling Bird Flu: Kansas State Univ. researchers helped develop a vaccine that protects poultry from multiple strains of avian influenza found in the United States.

* Cows as Weed Eaters: This livestock expert says cows can be trained to eat broadleaf weeds; some apparently have a more nutritious leaf-to-stem ratio than grasses.

* Backyard Chickens and Backyard Bugs: New research indicates that free range chickens are exposed to a different set of parasites than those found in most commercial facilities.

* Fish Farms: The National Oceanic & Atmospheric Administration implemented the nation's first comprehensive regulatory program for aquaculture in federal waters.

* Animal Data: Animals are the earth's sensors--scientists are using GPS to track a massive amount of data.

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* "Ag Gag" Laws in Court: North Carolina becomes the third state taken into federal court where it will have to defend its recently enacted law to protect the privacy of animal agriculture.

* An Egg-opedia Site: America's egg farmers provide information about where eggs come from and the efforts they make to take care of the poultry process.

* Meat on the Move: U.S. pork exports continued to gain momentum while beef exports also showed signs of a rebound, according to data from the U.S. Meat Export Federation.

* The Real Wild Hogs: A University of Florida study claims that feral swine cost the Florida cattle industry at least $2 million a year.
**Food Science and Safety News**

The Seinfeld Syndrome--Dipping Your Chip Twice (video): Another verdict on an old controversy--double dipping a tidbit into a sauce after one has already taken a bite is by no means sanitary.

Leave the Gun; Take the Olive Oil (video): The CBS News magazine *Sixty Minutes* aired a segment on mafia involvement in Italian agriculture--including the shady underworld of the olive oil trade.

Changes in the Lunch Line? A new study about student eating habits before and after USDA updated school meal standards finds that kids are selecting healthier foods with fewer calories per gram for lunch.

Pass the Threonine, Arginine, and Tyrosine: This article explains why no food is "chemical-free."

Airline Meals Turn 97: This story looks at one of the world's largest airline food factories--this one is the Emirates Flight Catering facility in Dubai.

Can I Smell the Wine Cork? Nine mistakes you are probably making while dining out according to restaurant pros.

Labeling Standard for Grass-fed Meat: The USDA rescinded the labeling standard for grass-fed meat.

Process Labeling (opinion): This editorial from the American Council on Science and Health looks at the pros and cons of process labeling--citing a CAST issue paper in the process.


Industrial Strength Guac Dip: According to this report, 278 million Mexican avocados will be shipped to the United States for the Super Bowl.

Hot Topic: This article takes another look at the question: could regular eating of spicy foods help you live longer?

Counting Calories Electronically: A new gadget promises to reveal the nutritional value of your meal by scanning its chemical makeup.

**Plant Agriculture and Environmental News**

Cover Crop Cocktails (video): By using many plant varieties in his cover crops, this farmer says he is able to reduce the inputs needed on his farm--including fertilizer, herbicides, and fungicides.

Biomass as Primary Energy Source? (video): This Iowa State University agronomy assistant professor says perennial grasses can reduce the carbon pollution that causes climate change.

Year of the Pulse: Nutritious pulse crops--such as beans, peas, lentils, and chickpeas in their dry form--are the subjects of an international focus.
**Online Farming Aid:** A University of Nebraska-Lincoln researcher helped develop a computer-based tool that transforms trillions of model realizations into a simple website platform that will aid farmers.

**RFS in Court:** Seven pro-biofuel organizations are challenging the EPA’s changes to the renewable fuel standard (RFS) program in court.

**Corporate Backing for Biotech (opinion):** Ocean Spray is a company that advocates for the safe and effective use of agricultural biotechnology to increase the food supply while lowering costs.

**Pavlovian Plants:** Two scientists received funding to study whether or not plants can learn like Pavlov’s dog.

**Soybean Researcher of the Year:** Dr. Tom Allen of Mississippi State Univ. performs various types of research, including numerous foliar fungicide trials to determine the efficacy of commercially available fungicides.

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**International News**

**Tiger Plays with Prey (videos):** In a Russian zoo, an unlikely friendship develops between a tiger and a goat who was supposed to be his dinner.

**Unusual Crop Rotation:** This entrepreneur talks about his award-winning invention—a rotating vertical farming tower—and his vision for Singapore’s agriculture sector.

**Egg and Chips:** A new plant that can grow both aubergines (egg plants) and potatoes has been developed and has gone on sale in Britain for the first time.

**Drought in Africa:** Zimbabwe is feeling the strain of El Niño, as a drought across southern Africa kills crops, disrupts hydropower production, and necessitates stringent water rationing.

**Biotech Crops in Africa (related to above):** Although some countries have banned biotech crops, Africa takes a fresh look at GMO crops as drought blights the continent.

**SMARTfarm--Digital Down Under:** This project connects students with data streaming from the paddocks of high-tech university farms across Australia.

**Farming as Therapy:** A former U.S soldier takes up agriculture on a Philippine island, gives up modern life, and “finds his humanity.”

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**General Interest News**
**Toy or Tool?** Before spending potentially thousands of dollars on a new drone, most farmers want to know if they are purchasing a valuable piece of new on-farm technology or just an expensive toy.

**Drone Killer System:** Airbus has revealed a product that can automatically monitor an area and disable a drone by jamming its signals.

**It's Virtual Food Time:** The 2016 Consumer Electronics Show in Las Vegas provided virtual reality promoters a chance to show its value in the food and beverage fields.

**Rain, Floods, and Drought:** Egged on by El Niño, rain is falling across California. While it's welcome in most respects, it still isn't enough to bust the drought.

**Uber My Tractor:** Imitating Web-based companies like Airbnb or Uber, a site dedicated to leasing and using farm equipment is making available expensive machinery during the times producers need it most.

**Renewable Energy on the Farm:** Some farmers are trying to cut back on the coal and gas they use in an effort to make food systems more energy efficient.

**Winter Reading (opinion):** The Food Tank organization recommends these books about food and alternate farming.

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**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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