**Friday Notes**

**Council for Agricultural Science and Technology**

*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.

---

**January 31, 2020**

**Food Safety Then and Now**

*From the Poison Squad to the FDA, Universities, and Veterinarians*

By the late 19th century, the American food supply was "rife with frauds, fakes, and legions of untested and often deadly chemicals that threatened the health of consumers." A PBS documentary called "The Poison Squad" explains how Dr. Harvey Wiley used science, publicity, and a group of volunteers to push for safer food. Wiley is considered the "father of the Pure Food and Drugs Act."

During recent years, the United States Department of Agriculture has emphasized that "animal, plant and human health are inextricably linked." The government provides food safety information, and officials note that veterinarians monitor food supply systems and are crucial for the public’s health—but "there are not enough of them." CAST will roll out a new publication in early spring focused on the recruitment and retention of veterinarians. See page two below for more about this.

Many universities provide a variety of programs for veterinary training and research. A few examples from CAST's member schools include: (1) the University of Nevada-Reno offers a quality undergraduate program, (2) The Ohio State University is involved with a global veterinary medicine training program, and (3) Penn State University researchers have bonded an antimicrobial layer to conventional, clear polyethylene plastic typically used to vacuum-package foods such as meat and fish, in hopes that this could help decrease foodborne illness outbreaks.

---

**Announcements**

Click here for information about the Dr. Norman E. Borlaug Award for Field Research and Application organized by the World Food Prize Foundation.

The theme for this year's National Ag Day is *Food Brings Everyone to the Table*. Check here for sponsorship opportunities.

This Tuskegee University project builds a consortium to assist minorities and others in historically underserved populations to become farmers and ranchers.

The Animal Agriculture Alliance's May summit in Virginia is accepting early registration. The theme is *"Building Links along the Food Chain."*

The 2020 North American Prairie Conference this summer in Des Moines has an April 15 deadline for proposals.

---

**News and Views**

**USMCA:** President Trump signed into law a major rewrite of the rules of trade with Canada and Mexico. Most farm groups are optimistic.

**Global Health:** The World Health Organization declared the new coronavirus outbreak a global public health emergency. Experts are looking at the possible effects on global markets and agriculture.

**Trade, Markets, and Coronavirus:** Officials are concerned about the effects the coronavirus outbreak could have on the recent trade deal between the United States and China.
The National Cattlemen's Beef Association, Merck Animal Health, and the Beef Quality Assurance will offer several "Stockmanship and Stewardship" cattle training programs.

North Carolina A&T State University staff members volunteered with the Greater Greensboro Habitat for Humanity.

Send in Ideas
CAST welcomes suggestions for future publications and projects.

CAST Social Media

CAST News
BCCA Nominations and Forthcoming Publications

BCCA Nominations Due February 3

Nominations are due by February 3 for the 2020 Borlaug CAST Communication Award, an honor that recognizes professionals actively working in the agricultural, environmental, or food sectors who are promoting agricultural science in the public policy arena.

This award has become an influential component in the efforts to keep agricultural issues and programs in the public eye and in front of national and world policymakers. Click here for nomination forms.

During the past ten years, BCCA winners (in photo at right) have influenced agriculture with their scientific insights and communication skills.

Forthcoming Publications

Producing Food Products from Cultured Animal Tissues is a commentary that will focus on the issues surrounding cell-cultivated meat.

The Microbiome's Positive Impacts on Crops is an issue paper that covers key points about good fungus, bad fungus, and crop production.

Impact of Recruitment and Retention of Food Animal Veterinarians on the U.S. Food Supply is an issue paper looking at the challenges of recruiting and retaining food animal veterinarians in the United States—including factors such as consolidation, technology, funding, rural influences, student training, and financial strain.

Share Your Story

In conjunction with the "veterinarian paper," if you would like to be part of our collective narrative by sharing personal anecdotes, an opinion piece, or helpful resources for aspiring veterinarians, please contact Kim Nelson at knelson@cast-science.org or fill out this secure online Google form.

Renewables in Court: The 10th Circuit Appeals Court has struck down three small refinery exemptions under the Renewable Fuel Standard.

News from the Far Side of the Barn
Super Bowl Edition

The Big Sell (videos): Food companies such as Doritos, Mountain Dew, and Pop-Tarts spent $5 million for 30-second Super Bowl ad spots.

More Buzz about Super Bowl Ads (video): The beer commercials get emotional, a soap ad gets dirty, and we learn what "smaht pahk" means.

Football Gone to the Dogs (video): The 2020 Puppy Bowl participants hope to live up to the fun of last year's canine football frenzy.

A company CEO bought a $6 million Super Bowl ad to thank the veterinarians who saved his dog's life.
CAST papers are now available for free download on the newly formatted CAST website.

Friday Notes News Categories

Photos courtesy of the Agricultural Research Service (top masthead); TopLatest News (globe at right). P. 1 cattle pic from beef.org, food safety cartoon from visitthecapitol.gov, food graphic from fda.gov, storm pic from outsideonline.com, globe pic from about.com, and veterinarian photo from klfy.com. Animal Sec. drone pic from uky.edu and Temple Grandin photo from d.umn.edu. Food Sec. collage from pinterest.com and Bon Jovi photo from extratv.com. Plant Sec. plant health graphic from usda.gov and soybean pic from agdaily.com. Inter. Sec. locust photo from saturated.tv.jpg and cow pic from satiewire.com. Gen. Sec. animal doctor photo from vetmed.tamu.edu and snake pic from MarcMontes.jpg. Unless otherwise noted, photos courtesy of the USDA Agricultural Research Service or CAST.

Animal Agriculture and Environmental News

Veterinarians to the Rescue

(1) UC-Davis scientists performed surgery to reverse a puppy's heart failure. (2) University of Florida experts saved a horse that nearly died from an aggressive bacterial infection, and (3) North Carolina State veterinarians performed unusual surgery to save a goat.

Dairy and a Trade Deal: Dairy industry officials consider the possible gains and needed improvements of a trade deal between the United States and China.

Chicken Health: CRISPR genome editing has been used to make chickens resistant to a common virus. This could boost egg and meat production while improving animal welfare.

Pig Facilities: This pig finishing facility in Belgium has a range of innovations--space for the animals, advanced manure separation, and vegetable feed rations.

Birthing Calves: University research shows that calves born after a prolonged, difficult birth are at a higher health risk because of decreased colostrum intake.

Livestock Handling: Animal behavior expert Temple Grandin had two messages for Iowa State University students--strive for optimum, not maximum, and don't let bad become normal.

Poultry Mobile Service: The North Carolina State College of Veterinary Medicine's new poultry mobile service helps producers with health checks and disease prevention.

Food Science and Safety News

Everything But the KFC Recipe (video): A Bon Appétit editor explains "24 ways to cook a whole chicken," from poaching to deep-fried to something called "beer can chicken."

Pasta Now a Vegetable? Government officials say that by expanding the types of foods that qualify as a vegetable in school lunches, students do not waste as much. Some debate the recent changes.

Label Conflict: A bipartisan group of senators is calling on the FDA to end the labeling of plant-based foods.
**Fast-food flops**--think Halloween Whopper, the Dairy Queen Breeze, and the Hula Burger.

**Farmers Reducing Waste:** Farmers are working on **ways to prevent waste** by improving food handling practices and preventing loss in the production cycle. Click here for the CAST paper *Food Loss and Waste.*

**University Food Insecurity:** Jon Bon Jovi and his wife started JBJ Soul Kitchen to **combat food insecurity for college students** with a “pay it forward” system.

**The Still Incredible Egg:** These researchers analyzed data from three large, long-term multinational studies and then made **recommendations about egg consumption.**

---

**Plant Agriculture and Environmental News**

**Saving the Everglades:** University of Florida experts are studying **environmental changes in the Everglades,** as they hope to improve soil conservation and explore different water management strategies.

**Cover Crops:** This article highlights the **positive effect of cover crops** on active microbial biomass and bioavailable soil carbon.

**Genetic Application:** Researchers helped **identify and clone a gene** that can stave off a common disease found in Pacific Northwest wheat and barley.

**Green Bridge Insects:** Mississippi State University entomologists are concerned about **insects that overwinter and migrate** along the green bridge, moving from cover crop to cash crop.

**Green Algae Energy:** This University of Missouri scientist says **green algae can convert sunlight into energy** and store it in the form of oil.

**One Hundred Years of Soybeans:** This report takes a **historical look at the soybean** and its use for animal feed.

**Organic Production:** A large-scale study looked at **diversity and profitability** at organic agriculture sites.

---

**International News**

**Trans-Atlantic Tussle:** The U.S. Secretary of Agriculture said the European Union needs to redress a $10-12 billion imbalance in farm produce trade with the United States and adapt its food safety rules.

**Feed Supply:** *International feed tonnage decreased* by 1.07% to 1.126 billion metric tons of feed produced last year, according to the 2020 Alltech Global Feed Survey. African swine fever may have been the chief cause.

**GM Ban Lifted:** State authorities say that farmers in South Australia can **now opt to grow genetically modified crops,** lifting a moratorium that had been in place since 2004.

**New "Yogurtish" Option:** Scientists in Denmark have developed a "plant-based yogurt" made from soy drink, brewer’s spent grain, and lactic acid bacteria from plant materials.

**Google Translate for Cows?** Australian researchers say they have figured out how cows use a **variety of voice cues to communicate.**

**Hundreds of millions of desert locusts** are swarming in Ethiopia, Kenya, and Somalia--some of the biggest numbers seen in more than 25 years.
Crop Diseases: Already struggling with a growing malnutrition crisis, Venezuela is also facing a rise of crop diseases that threaten to further weaken the country’s food security.

General Interest News

Bacon Scratch-N-Sniff: An Oxford University professor created a bacon patch for vegans struggling to stay meat free. After it’s been scratched, it emits the smell of cooked bacon.

Diseases on the Move: With epidemics in the news, this article looks at a history of quarantines, from bubonic plague to Typhoid Mary.

Red, Red Wine: California’s Russian River flowed with a cherry-red tint after thousands of gallons of fresh cabernet sauvignon wine spilled into a tributary in Sonoma County.

"Wicked Smaht" Wasps: Cornell researchers say facial recognition abilities evolved relatively rapidly for species in general, and they suggest that for wasps, their increasing intelligence provided an evolutionary advantage.

Snakebite Solutions: Scientists are applying stem cell research and genome mapping to boost antivenom production to potentially save thousands of lives.

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.

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 or chamilton@cast-science.org, or CLICK HERE for CAST membership information.

Societies, Companies, and Nonprofit Organizations

Serving on the CAST Board of Representatives

* 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
CAST, through its network of experts, assembles, interprets, and communicates credible, balanced, science-based information to policymakers, the media, the private sector, and the public.

Members of CAST’s Education Program

* Cal Poly-San Luis Obispo
* Cornell University
* Iowa State University
* Kansas State University
* Mississippi State University
* North Carolina Agricultural and Technical State University
* North Carolina State University
* Penn State University
* Purdue University
* Texas A&M University College of Ag & Life Sciences
* The Ohio State University
* Tuskegee 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 Missouri-Columbia
* University of Nebraska Agricultural Research Division
* University of Nevada-Reno College of Agriculture, Biotechnology and Natural Resources

Dan Gogerty (Communications and Friday Notes Editor)
Kimberly Nelson (Communications and Social Media Specialist)
The Council for Agricultural Science and Technology
4420 West Lincoln Way
Ames, Iowa 50014-3447
Phone: 515-292-2125, ext. 222 (Dan) and 230 (Kimberly)
E-mail: dgogerty@cast-science.org and knelson@cast-science.org

** With assistance from Megan Wickham (Scientific Editor) and Colleen Hamilton (Membership Specialist)