It's Alive!

The importance of nurturing our soil

Around the world, farmers, soil scientists, and others are seeing topsoil as a living thing—an entity that can be tended and even improved. Good soil is alive with a host of delicate organisms—many of them microscopic—producing structure and nutrients.

In 2014 the National Corn Growers Association—with help from Monsanto, NRCS, the General Mills Foundation, and others—teamied up with the Environmental Defense Fund and the Nature Conservancy to create the Soil Health Partnership to identify and test soil health practices and pass them on to farmers.

A recent article, "Can American Soil Be Brought Back to Life?," looks at the possibilities of "bringing back the great American topsoil." The Internet and other sources provide plenty of thoughtful material about this issue—including announcements, links, and information on the Twitter account of the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America. For news briefs and articles, check out this website from the Soil and Water Conservation Society.

News and Views

USDA in Change Mode: This article examines Secretary of Agriculture Sonny Perdue's plans to realign a number of offices within the U.S. Department of Agriculture. A former EPA administrator and state governor takes issue with the realignment direction of the EPA.

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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 the CAST organization.

In This Issue...... Click to Read

Universities Gearing Up--P. 2
Animal Agriculture News
Food Science and Safety News
Plant and Environment News
International News
General Interest News

2018 National Ag Day Essay Contest

Students across the country are invited to enter the National Ag Day essay and video contest--this year's theme is "How Will Agriculture Feed the World?"

Farm Safety
This National Farm Safety and Health Week site provides scores of links to stories, information, and life-saving suggestions.

Biotech Conference
The Genetic Editing in Agricultural Biotechnology Roundtable will be hosted by the American Bar Association and the American Agricultural Law Association—in conjunction with CAST—on October 24 at the North Carolina
Biotechnology Center in the Research Triangle Park.

**Ag Experts at Meeting**
This year's Iowa Hunger Summit will feature an exceptional opportunity to hear the five most recent U.S. secretaries of agriculture discuss current issues in food security.

**Global Resources**

**IFIC--Process This**
This newsletter from the International Food Information Council Foundation provides various articles about food.

**Ag Ed Resources**
The Ag Foundation offers free resources and lesson plans about agriculture and links to more agricultural education materials.

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

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**Storms, Floods, and Agriculture:** Flooding from Hurricane Harvey is slow to drain in some areas of Texas--and in Louisiana, rice and soybeans are suffering from heavy damage. Ranchers are also still moving cattle to safe ground.

**Dangers of Flooded Fields:** The FDA issued an update with questions and answers related to using crops harvested from flooded fields--toxic waste materials and mold are major concerns.

**Biotech in the EU:** The European Court of Justice ruled that EU member state governments cannot ban the cultivation of genetically engineered crops without scientific evidence of risk to human health. The decision reverses the "precautionary principle" that has been the EU's long-standing default argument to support unverified safety concerns about the importation or cultivation of biotech crops. Note: Click here for access to the CAST Issue Paper Impact of the Precautionary Principle on Feeding Current and Future Generations.

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

**Come for the Mediocre Food-Stay for the Dinosaurs, Lasers, and Robots:** The Robot Restaurant is one of Tokyo's top tourist attractions. Food is secondary--loud music, warrior princesses, and 10-foot-tall transformer robots provide the dining distractions.

**From Beer to Bacon to Barbeque:** What food-related item does each state google most?

**Kids Crunch Down at Bug-eating Festival:** Sticking with a recent insect-eating theme, this article shows youngsters apparently happy to be entomophages. Do gummy worms qualify as insects?

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The Fall Semester Shifts into High Gear
University campuses are buzzing around the country, and CAST has a close connection with many of the best agriculture, science, and technology institutions.

Each week, this newsletter includes links to articles about research, student projects, or educational opportunities at various universities. Here are a few examples:

**Breeding Better Grapes:** The next great grape is getting a boost as funding for a new Cornell-led project uses genomic technology to create grape varieties with more flavor and sustainability.

**Sunday with a Scientist:** The University of Nebraska State Museum invites visitors to learn more about the "jungle under our feet"—a dive into plant science with plant roots, soil, and microbes in agriculture.

**Endless Educational Opportunities:** Iowa State University recently received a $14 million gift in support of a new educational and research facility for feed milling and grain science.

**Foundation for Future Farmers:** This Kansas farmer donated 2,300 acres of farmland to Kansas State University to use in the development of a research farm focusing on sustainable agricultural practices, soil conservation, reclamation, and protection.

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**Fluttering Horse’s Heart (video):** A new procedure offered by cardiologists at Cornell provides an alternative way to reset the quivering heart of a horse back to its normal heartbeat.

**Twenty-five Years of Beef's Quality Challenges:** This Kansas State University expert says three main drivers have led to higher quality grades—prices, drought, and genetics.

**Pig Production Trends (opinion):** This expert says the swine industry is going through a seismic shift in 2017, and he explains seven key changes now taking place.

**Chicken Research:** Penn State Univ. researchers are looking at ways to develop safe, comfortable cage-free chicken housing.
Animal Welfare Lawsuit: Some organic supporters are suing the Department of Agriculture over a decision to delay implementation of the organic animal welfare standards rule.

Baffled By Bees: Saving the pollinators may be quite challenging if we are unable to even recognize them. Can you pick the bees out of this insect lineup?

Lighting Up The Smell: Iowa State University researchers have literally, and figuratively, shed new light on the odor problems arising from livestock facilities.

Food Science and Safety News

Fuel Your Car with Food Waste: We all know that food waste is a major problem, but a recent report suggests our food scraps could be put to good use as an energy source.

The Fingers Point Back to Us: This landmark food report reveals that consumers are the largest generators of food waste, followed by restaurants and other food service institutions, then farms and supermarkets.

Food Terrorism (opinion): This food specialist is worried about foodborne terrorism—he advocates more and better inspections by FDA and FSIS inspectors and increased intelligence work by the CDC and FBI.

Fact Check: Dairy products make sense for safe, healthy eating—a nutrition and health specialist debunks popular milk myths.

Food Shortage: We’ve long known the world might reach a point where it has more people than food to sustain them—recent data says we could be facing this deficiency far sooner than 2050.

Age Difference: The results of this survey indicate that age plays a role in the knowledge and interpretation of food choices.

Secret Supermarkets: Do you find your grocery bill sneaking up each time you shop? Here are some secret ways supermarkets make you spend more than you should.

Plant Agriculture and Environmental News

Bananas are exposed to a number of diseases, and...
Corn and Beans Report: The USDA Crop Progress Report says conditions are stable, although Midwest corn and soybean maturity is still lagging. The USDA also predicts record soybean production and the third largest corn crop. Check here for the latest corn and soybean reports and market trends.

Forest Forensics: To track down ancient timber thieves, researchers are turning to new technology and tried-and-true criminal justice techniques.

Corn, Fertilizer, and Water: This university research looks at how phosphorus and nitrogen fertilizer can be applied to optimize production of irrigated corn—specifically in western Kansas.

Biotech Moths? This destructive insect has spread across the world and mutated to become immune to each chemical pesticide designed to slay it, but scientists may have created a way to defeat it.

From the Ground Up: This Duke University scientist says breeding a better corn crop is easy—you have to get to the root of the matter.

Disease-resistant Spinach: The USDA's National Institute of Food and Agriculture awarded a $2.45 million research grant to scientists working to develop disease resistance in spinach. Some say they could suffer more as climate change encourages those pathogens to spread.

Supergrass Pork: Several partners in Danish agribusiness are teaming up to figure out whether or not grass or clover could be a suitable protein source for organic pigs.

Cotton Crunch: The world's top cotton buyers are looking to India to secure supplies after fierce storms in the United States affected the size and quality of the crop.

Hog Health (opinion): This Dutch hog expert looks at the possibility of creating a pig house environment that is virtually free from pathogens—it requires dedication, devotion, and discipline.

Mmm, Mealworms: A new project looks at the use of organic by-products and waste products to raise insects on a large scale for animal and human consumption.

Gibier, Anyone? The Japanese government spends nearly $100 million a year to eradicate "harmful animals that devour agricultural products"—a recent movement has risen to utilize those animals as food sources.

Cambodia and Agriculture: A head economist outlines how Cambodia could stay competitive by increasing its agricultural productivity.

Blooms in the Desert: Vegetables are sprouting in the desert at the Sahara Forest Project in Jordan.
Farm-to-School (video): Students at a small school in rural Iowa are getting their hands dirty and their minds enriched in agriculture as they bring farming to the school.

Let the Sun Shine--On Sheep: North Carolina State University is looking at the relationship between solar development and agriculture--specifically opportunities solar farms might hold for the sheep industry.

#PowerYourFamilyMeal: Produce for Kids is partnering with Meijer, a midwestern family-owned supermarket, to help bring nutrition education to local schools.

Do You Have Any Investment Money Lying Around? A 55,575-acre cattle, golf, and resort ranch on the Hawaiian island of Molokai is for sale with an asking price of $260 million.

Farming in a Special Way: Cancer left this farmer paralyzed--but community support and a mechanical chair (and his determination) have kept him farming.

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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