Week of October 4, 2019

Importance of Genetic Diversity
Three Events in D.C. Featured Key Points from a New CAST Publication

While genetic selection strategies around the world have improved livestock productivity and consistency, a lack of genetic diversity could put food production at risk, according to a new report from CAST. The publication’s task force chair, Dr. Julie Long, presented major highlights from the paper—Protecting Food Animal Gene Pools for Future Generations—September 30 at three Washington, D.C., events.

Julie Long—a USDA Agricultural Research Service scientist pictured at left with Dr. Scott Hutchins, USDA Undersecretary for Research, Education, and Economics—said the main purpose of this report is to “bring awareness” to the subject. CAST EVP Kent Schescke said key takeaways from the paper include: (1) access, prioritize, and protect populations most at risk, (2) improve cryopreservation technology, (3) expand and connect databases, and (4) develop public-private partnerships that include rare breed associations, universities, government agencies, and NGOs.

Click here for the full publication and here for the Ag QuickCAST.

News and Views

Ag Barometer: The latest Purdue/CME Group Ag Economy Barometer overall index dropped this month, although more responders say they expect the trade dispute with China to be settled soon.

Farmers Face Long-term Market Challenges: This paper examines payments by the 2018 Market Facilitation Program and potential implications for future farm safety net policies.

Red Meat Consumption: The National Pork Board and many others hope the new report on red meat consumption and human health will
prepare college students for industry careers.

**Buckeye Food Safety**
A new center at The Ohio State University will provide a centralized location for food safety resources.

**Organic in Florida**
The University of Florida will host Bob Quinn, an expert on organic farming, at an October 11 seminar.

**Portfolios for Students**
These University of Arkansas grads emphasize the importance of portfolio building for students with creative majors.

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

**CAST Social Media**

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**CAST Event Features Influential Ag Communicators**

2019 BCCA Winner Frank Mitloehner Will Be Honored

On Wednesday, October 16, CAST will officially present Dr. Frank Mitloehner (featured in photo at right) with the 2019 Borlaug CAST Communication Award (sponsored by CropLife Foundation). The animal science specialist from UC-Davis will speak about “Feeding the World Without Wasting It.”

Following the address, Julie Borlaug (left) of INARI Agriculture will moderate a panel discussion about the topic of the current state and future role of science communication in food and agriculture. The panel will include five BCCA winners on the 10-year anniversary of the award.

**Panelists:**

- **Catherine Bertini**, Distinguished Fellow, Chicago Council on Global Affairs and World Food Prize Laureate 2003 (2011 BCCA winner)
- **Marty Matlock**, Executive Director, UA Resiliency Center and Professor, Biological and Agricultural Engineering Department, University of Arkansas (2018 BCCA winner)
- **Frank Mitloehner**, Professor and Air Quality Extension Specialist, Department of Animal Science, University of California-Davis (2019 BCCA winner)
- **Channapatna Prakash**, Dean of the College of Arts and Sciences at Tuskegee University (2015 BCCA winner)
- **Carl Winter**, Cooperative Extension Specialist Emeritus, University of California-Davis (2012 BCCA winner)

This side event (October 16 in Des Moines) at the World Food Prize offers a complimentary breakfast at 7:00 a.m., Dr. Mitloehner’s speech at 7:30 a.m., and the panel discussion at 8:30 a.m. Check here for information about how to register for the program.

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**Friday Notes News Categories**


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**Animal Agriculture and Environmental News**

**Ag Waste to Bio-mass (video):** These UC-Davis graduate students and a researcher propose feeding agricultural waste to insects that convert the products into bio-mass.

**Poultry in the News:** This agriculture site offers its top ten poultry articles of September—from production practices to legal actions.

**A Call for FMD Vaccine:** An Iowa State veterinary professor and other officials say a foot-and-mouth-disease outbreak may be impossible to control in the United States without the rapid availability of the vaccine.

**Proactive Pork:** Fourteen pork-producing states are preparing to face African swine fever head-on by participating in a four-day ASF role-playing exercise hosted by USDA-APHIS.

**Promoting Pigs:** A Pennsylvania man is America’s Pig Farmer of the Year for 2019-2020 due to his leadership and commitment.

**Triple-E Warnings:** The worst outbreak of eastern equine encephalitis (EEE) since U.S. health officials began monitoring the mosquito-borne disease 15 years ago is prompting aerial bug spraying and concerned warnings.

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**Food Science and Safety News**
Omega-3--Fishy or Not? Millions of Americans pop a fish oil supplement each day, hoping to bolster their heart health. This research looks into omega-3 supplementation.

Omega-3 Special Publication: Check out the CAST Special Publication, Omega-3 Fatty Acids: Health Benefits and Dietary Recommendations.

What's Your Beef? Considering cuts, grinds, product type, and quality grade, this article explores retail sales by the eight U.S. regions to uncover purchase patterns for beef.

Superfoods or Myths? This commentator thinks that the superfood concept overshadows science-based information about healthy diets and uses "magic elixirs" to confuse consumers.

Going Nuts: This study indicates that increasing nut consumption by just half a serving a day is linked to less weight gain and a lower risk of obesity.

Meat Consumption, Research, and Common Sense

Last week, a well-known science site presented research showing that halving the amount of red and processed meat in the diet can have a significant impact on health. Later that day, the site linked to research showing that cutting back on red meat has little impact on health. Many media outlets backed that up, pointing out that red meat recommendations may be changing, but the conflicting research is confusing, and consumers are often left in a fog.

Many food items--from eggs to milk to red wine--have been portrayed in varied ways through studies, trends, and editorials. Readers can find many sources of advice for diet and nutrition (grandma maybe?), but common sense is probably the guiding principle. As agriculture expert Frank Mitloehner said, "Consumers don't know what to eat because of confusing or false information," and noted food commentator Tamar Haspell claims she now disregards guidelines: "Eat a wide variety of foods with their nutrients intact, keep your weight down, and get some exercise."

Plant Agriculture and Environmental News

Pesticides and Lattes (video): A latte cup is used to explain the way most farmers operate to make pesticide use safe and effective. Check here for a wide variety of videos from the National Corn Growers Association.

Frost, Freeze, Crops, and Growing Seasons: There are substantial differences between frost and freeze when talking about impact on agriculture and crops.

Weed Wars: USDA experts and others are looking at integrated weed management strategies like cultivation, burning, and seed crushers.

A Look at Biodiesel: The stories on this United Soybean site explain how biodiesel drives demand for U.S. soy oil and the carbon-reduction benefits that come with this renewable fuel.

Relief at the Pump (podcast): The Renewable Fuels Association says a new study shows that
U.S. consumers saved an average of 22 cents per gallon on gasoline thanks to ethanol.

**Water and Low-input Crops:** Agronomists have been researching various alternative crops--sesame, cotton, sorghum--that will grow well in dry areas of western Texas.

**Robust Plants Fight Drought:** Researchers found that drought stress triggers the activity of a group of jumping genes called Rider retrotransposons.

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**International News**

**Dining on the High Seas (video):** Feeding more than 900 passengers on a seven-day cruise is a challenge--for starters, consider some 60,000 eggs, 9,700 pounds of chicken, and 700 pounds of ice-cream.

**Shrinking Hog Herd:** China's hog herd fell by half in the first eight months of 2019 due to a devastating outbreak of African swine fever, and numbers are likely to keep falling.

**Global Farm Aid:** A coalition of donors, aid institutions, and philanthropists promised to invest millions of dollars to aid smallholder farmers in developing countries as they adapt to the impacts of climate change.

**Aussie Ag Going Digital:** This report looks at the "Digital Transformation of the Australian Agriculture Sector, Forecast to 2022."

**Genetics and Maize Protection:** Scientists are studying the layers of immunity in maize to determine if there are key genes that enable diverse antibiotic cocktails that defend against numerous disease agents.

**Grass to Gas Project:** British scientists are working on a new genetic program to breed sheep that emit less greenhouse gases.

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**General Interest News**
Composting to Cut Waste and Help Soil (video): The University of Kentucky evaluates a food waste composting system—a natural breakdown of organic wastes to make a useful addition to gardens or potted plants.

Compost, Soil, and Carbon (related to above): A recent study from UC-Davis suggests that compost plays a larger role than once thought in building soil carbon.

Changing Ecosystems: University of Nebraska-Lincoln research will look at the ability of ecosystems to withstand rapid and sudden transitions to an undesired state.

Farm Workers and Visa Programs: Farmers have been struggling to hire enough workers, and many turn to the H-2A temporary visa program.

Three Part Harmony Farm: This energetic woman helps feed her community while also working to pass legislation making land acquisition easier for urban farmers in Washington, D.C.

Women in Agriculture (video): An Ohio State University student made this drone video to showcase the many roles women have in the agricultural industry.

AgVenture: The “AgVenture Trail” is a 40-mile long loop that includes local farms, markets, restaurants, and places to stay.

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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