ARS & You

Research for the Growing World

February 2013 www.ars.usda.gov

In This Issue:

Around ARS

Notable Awards

Did You Know?

Please submit story ideas and national award items to Mina Chung, mina.chung@ars.usda.gov, or call 301-504-1653.

Around ARS

Your Two Cents (Y2C)

www.ars.usda.gov/yourtwocents

The ARS Cultural Transformation (CT) Team has finished the new CT Action Plan for 2013, and plans are under way to re-invent ARS's cultural transformation efforts. Watch for CT site components to be added to the new ARS Intranet site coming soon! The ARS Intranet will be a "one-stop shop" for employees to find the tools they need to work smarter, not harder. Your Two Cents site improvements are under way as well, based on improvements suggested at the Y2C Summit. We plan to unveil the new and improved site just in time for Y2C's third birthday this May. Stay tuned! ✤

On January 14, 2013, the National Agricultural Library's **Food and Nutrition Information Center** (FNIC) hosted a joint class day as part of the University of Maryland Dietetic Internship. More than 75 area dietetic interns participated in sessions led by speakers from both the government and private sector on the theme "Nutrition, Communication, and Information Management." The keynote presentation was given by Tori Garten, Chief, New Media and Web Policy Branch at the National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health. FNIC staff coordinated various activities throughout the day. ✤

The Maize Genetics and Genomics Database (MaizeGDB), a project led by the **ARS Corn Insects and Crop Genetics Research Unit**, Ames, IA, partnered with the National Corn Growers Association and Iowa State University to develop four podcasts for farmers. These digital audio recordings can be downloaded from the Association's website. The podcasts introduce the challenges of

harnessing large data sets, called "Big Data," which contain millions of data points resulting from DNA sequencing of corn lines. Each podcast introduces a different Big Data challenge, explains how MaizeGDB uses computer tools to provide new insights from the data, and then provides an example demonstrating how "Big Data" can be used to address an agronomic problem. All the major corn producers access ARS's corn genome database. ✤

Notable Awards

ARS received a tremendous honor when the American Society of Animal Science (ASAS) recently established an endowment to recognize five ARS scientists—four of whom are in the ARS Science Hall of Fame—for the enormous impact of their collaborative work in the field of livestock breeding and genetics. The "CDGKV" Appreciation Club honors **Larry Cundiff**, **Gordon Dickerson** (deceased), **Keith Gregory**, **Bob Koch** and **Dale Van Vleck**—all formerly with the ARS Roman L. Hruska U.S. Meat Animal Research Center, Clay Center, NE—for what ASAS cites as "one of the most important scientific collaborations of all time" and one that arguably had "the greatest impact in the field of livestock breeding and genetics" in ASAS's 104-year history.

ASAS cites this as an "unprecedented accomplishment in the agency's history that speaks to the immense impact of this team during their careers." The five scientists' work has also had major impact in swine, sheep, poultry and dairy cattle breeding around the world.

The endowment goal is $50,000 to provide annual funding of symposium speakers in beef cattle breeding at the Society's Joint Annual Meeting and support graduate students' travel to the World Congress on Genetics Applied to Livestock Production in the years that the Congress is convened. Visit ASAS for more information. ✤

Several ARS scientists were honored by the Weed Science Society of America (WSSA) at its annual meeting February 4-7 in Baltimore, MD.

From left: Mrs. Jessica Forcella, Frank Forcella and Professor Greta Gramig.

Research Agronomist **Frank Forcella**, ARS North Central Soil Conservation Research Laboratory, Morris, MN, was inducted as a new Fellow. Forcella has served as an editor for WSSA's journals and has garnered previous WSSA awards for outstanding papers and research.

Dale Shaner.

Research Plant Physiologist **Dale Shaner**, ARS Water Management Research Unit, Fort Collins, CO, received the Outstanding Research Award for his contributions to both applied and basic weed science research. He is a former WSSA president and board member and was elected a WSSA Fellow in 2000.

Raymond Carruthers.

Research Entomologist **Raymond I. Carruthers,** ARS Exotic and Invasive Weeds Research Unit, Albany, CA, received an Outstanding Paper Award for a paper he co-authored with **Angelica Herrera-Reddy**, formerly with the ARS Exotic and Invasive Weeds Research Unit, and Nicholas J. Mills, University of California at Berkeley. The paper was published in *Invasive Plant Science and Management*.

David Horvath.

Research Plant Physiologist **David P. Horvath**, ARS Sunflower Research Unit, Fargo, ND, received an Outstanding Paper Award for a paper he co-authored in *Weed Science*. ✤

Aileen M.J. Marshall, Web Developer/Reference Librarian, National Agricultural Library's Information and Customer Services Branch, is one of the recipients of the 2013 Special Libraries Association Rising Star Award, presented annually to recognize a new member who shows exceptional promise of leadership and contribution to the association and profession.✤

Aileen Marshall.

Research Leader **Jeff Carroll**, ARS Livestock Issues Research Unit, Lubbock, TX, and Janet Donaldson, Assistant Professor, Mississippi State University, lead a collaborative research team that received the 2013 National Pork Board Swine Industry Award for Innovation from the American Society of Animal Science (ASAS). Other ARS scientists on the team are Research Microbiologist **Todd Callaway**, ARS Food and Feed Safety Research Unit, College Station, TX, and Research Animal Scientist **Nicole Burdick Sanchez**, ARS Livestock Issues Research Unit. The award was presented at the 2013 ASAS Southern Section Meeting in Orlando, FL, on February 4. ✤

Alejandro Sosa.

ARS Biologist **Alejandro Sosa**, Foundation for the Study of Invasive Species (FuEDEI), Hurlingham, Argentina, was recently selected as a Scientific and Technical Researcher by the Argentinean National Council for Science and Technology (CONICET). His selection was based on the relevance of his research on biological control of alligator weed to Argentina as well as the United States. Sosa is the first member of FuEDEI to be selected for membership in CONICET, a highly prestigious honor. FuEDEI was formerly the ARS South American Biological Control Laboratory. ✤

The Senate of Puerto Rico passed a resolution on January 29, 2013, recognizing Research Entomologist **Fernando E. Vega**, ARS Sustainable Agricultural Systems Laboratory, Beltsville, MD, for his outstanding investigative work related to the coffee berry borer, which has had a highly important and positive impact on the coffee industry worldwide and in Puerto Rico. ✤

Douglas Johnson.

Research Plant Physiologist **Douglas A. Johnson**, ARS Forage and Range Research Laboratory, Logan, UT, received the 2013 W.R. Chapline Research Award from the Society for Range Management (SRM) for his exceptional, sustained contributions to research involving the physiological ecology of rangeland plants and the impact of his work in providing improved plant materials for semiarid rangelands of the western United States. He was formally recognized at SRM's Annual Meeting on February 6 in Oklahoma City, OK. ✤

Did You Know?

What can be better than the aroma of a fresh, hot stack of fluffy pancakes, waffles or French toast right off the griddle? A stack with warm maple syrup, of course! Beginning in the late 1940s, scientists at ARS' Eastern Regional Research Center (ERRC) in Wyndmoor, PA, have helped make improvements to maple syrup processing. That work has also continued at ARS' Southern Regional Research Center (SRRC) in New Orleans, LA, where food technologists recently made improvements to maple syrup processing.

Maple syrup is a minor crop. U.S. syrup production is generated from 10 states and totaled 1.91 million gallons in 2012, generated from a total of approximately 9.77 taps, according to recent National Agricultural Statistics Service data. Maple syrup mostly comes from sugar maple, red maple or black maple trees, although other maples can produce sap.

Maple trees need the right conditions—cold nights and mild days—to be able to "pour out" their liquid gold. Sap is extracted from the trees using a tap during late winter and early spring. The sugar from this sap is concentrated by boiling to make maple syrup.

Early U.S. settlers learned from Native American Indians the process of tapping trees by using metal spouts and buckets to get the sap to make syrup. ARS research has resulted in modernizing every aspect of this process from improving sap collection to finishing the syrup. One major development included a method to intensify the natural flavor and color of maple syrup, which helped expand the maple syrup market. In addition, ERRC researchers developed an inexpensive way to remove "off flavors" in maple syrup that's been in use since 1977 by both the United States and Canada—the world's leading maple syrup producer, accounting for three quarters of the world's maple syrup.

SRRC scientists conducted research to look at using air injection in syrup processing. Lighter colored maple syrup is more desirable to consumers than darker colored syrup, and research from this group showed that air injection can produce light-colored syrup more economically and efficiently without changing the syrup's composition.

So the next time you whip up your morning, afternoon or dinner favorites (see recipe), before you pour on the maple syrup, remember to thank an ARS scientist for his or her role in making this sweet development even better!

*Written by **Tara T. Weaver-Missick**, ARS Information Staff.*

Vermont Maple Chunky Beef Stew

(Serves 6)

1/4 C. flour

2 garlic cloves, chopped

1 large onion, sliced

1 stalk of celery, chopped

1 1/2 lbs. beef, cut into half-inch cubes

1 19 oz. can of tomatoes

1/2 C. dry red wine

1/2 C. pure Vermont maple syrup

4 medium-size potatoes, cubed

2 large carrots, sliced

salt and pepper to taste

Preheat oven to 325 degrees F. Combine flour, beef and seasonings in a plastic bag and shake to coat beef. Sauté garlic and onion together in 1 tablespoon of olive oil until tender. Combine all ingredients into a casserole dish, pour in 1/2 cup of water, cover and bake for 4 hours. (Can be cooked in a slow cooker.)

Source: Recipe and photo used with permission from the Vermont Maple Sugar Makers Association.

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