February 2017

USDA-ARS
Dale Bumpers National Rice Research Center Highlights
Stuttgart, Arkansas

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1. **Recently Accepted Publications**

2. **Technology Transfer**

   a. **Formal Events:**

   To Non-research Stakeholders

   On February 23, 2017, Dr. Yulin Jia provided molecular marker information to a University extension pathologist to guide farmers' selection of rice cultivars for 2017 crops, and breeding for improved blast resistance (Rice blast-resistant varieties: The best defense is a good offense-http://www.arkansas-crops.com/2017/02/28/resistant-varieties-defense/)

   To Research Community

   On February 9-10, 2017, Dr. Jinyoung Barnaby, Research Plant Physiologist hosted a visit by Associate Professor, Dr. June M. Kwak, of the Daegu Gyeongbuk Institute of Science and Technology, Korea. He presented a seminar on "Cell Movement and Separation" dealing with the current understanding of how cells respond to signals due to environmental changes. Following the seminar discussions were continued regarding possible research collaborations.

   b. **Informal Contacts**

   On February 7, 2017 Dr. Yulin Jia provided two differential blast races to a University researcher in the USA for conducting blast research.

   On February 22, 2017, Dr. Yulin Jia provided information on differential blast races, and blast resistance genes to 5 US rice researchers for evaluating resistance reactions for breeding materials and resistance responses.

   On February 24, 2017, Dr. Shannon Pinson provided information to a scientist with the private rice breeding company Bayer BioScience Pvt. Ltd in India on how to use a

laboratory fissure-induction system to screen rice germplasm for rice kernel fissure resistance.

During February, Dr. Anna McClung consulted with five companies interested in producing rice for specialty and organic grain markets, providing recommendations and seed samples of varieties to grow.

c. <u>Germplasm Exchanged:</u>

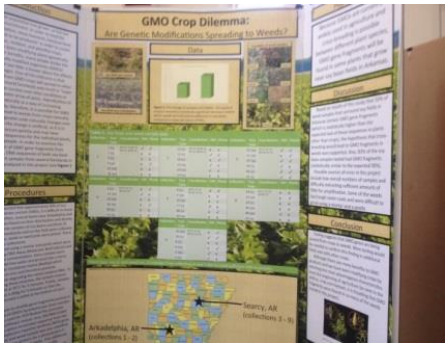
During February, 573 rice accessions from the Genetics Stocks *Oryza* (GSOR) collection were distributed to researchers in the US, Japan, Spain and the United Kingdom.

3. Education and Outreach

Aaron Jackson, Geneticist, participated in the "Real Men Read" program at the Park Avenue Elementary school in Stuttgart, Arkansas on February 7, 2017. He spoke to a kindergarten class about the USDA's role in agriculture and getting rice from the field to the table. This was followed by reading a children's book to the group. He gave out "grow your own rice" seed packets/handouts to the class. Dr. David Gealy, Research Plant Physiologist, read to a group of third graders on February 7, 2017. Trevis Huggins, Geneticist, also participated in the program on February 8, 2017. He read a book called "Stone Soup" to second graders.

On February 14, 2017 Dr. Yulin Jia hosted a meeting to discuss progress of thesis research with Mr. Bed Prakash Bhatta (a graduate student), and Dr. Sathish Ponniah (Professor, major advisor of Mr. Bhatta) of University of Arkansas at Pine Bluff, an 1890 historically black university at Dale Bumpers National Rice Research Center, Stuttgart, AR and gave them needed rice germplasm for thesis research.

Melissa Jia, Geneticist, and Jonathan Moser, Biological Science Technician, participated as judges in the Junior Academy of Sciences competition at Arkansas School for Mathematics, Sciences, and the Arts (ASMSA) in Hot Springs, Arkansas on February 23, 2017. Students presented 10 minute PowerPoint presentations on research experiments they conducted. Melissa was part of a two judge panel for Microbiology Cellular & Molecular categories, and Jonathan was part of a two judge panel for Animal Science and Plant Science categories. This event was a great opportunity to provide them feedback concerning their research and presentation.



New Significant Research Collaborations

Dr. Matthew Reid, Assistant Professor, and post-doc Dr. Scott Maguffin, from Cornell University, Ithaca, NY, are conducting research funded by the National Science Foundation assessing arsenic transformations in soil. Dr. Anna McClung provided assistance in identifying soils expected to differ due to different rice production practices being used in the prior season. Rice soil samples were collected by the Cornell team during February 21-24. Plans were established for further collaborative studies to be conducted at DBNRRC with involvement of several staff members.