



**May**  
**Highlights from the Dale Bumpers National Rice Research Center**  
**Stuttgart, AR**

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**1. Recently Accepted Publications**

ARS Anticipated Product: Plants with superior product quality and new uses for current crops.

**Chen, M.-H.,** McClung, A.M., and Bergman, C.J. 2016. Bran data of total flavonoid and total phenolic contents, oxygen radical absorbance capacity, and profiles of proanthocyanidins and whole grain physical traits of 32 red and purple rice varieties. Data in Brief, p. 6-13. DOI: <http://dx.doi.org/10.1016/j.dib.2016.05.001>

Phytochemicals in red and purple bran rice have potential health benefit to humans. We determined the phytochemicals in brans of 32 red and purple global rice varieties. The description of the country origin and physical traits of the whole grain (color, length, width, thickness and 100-kernel weight) of this germplasm collection are provided along with data of total flavonoid and total phenolic contents, oxygen radical absorbance capacity and total proanthocyanidin contents. The wide range of the chemical traits found in this set of dark pigmented bran rice and the description of whole grain physical traits will allow the breeding community and rice markets interested in specialty rice production to fully utilize information reported here.

**2. New Significant Research Collaborations**

**International**

**USA**

**3. New Awarded Grants**

**4. Technology Transfer**

**a. Formal Events:**

**To Non-research stakeholders**

**To Research Community**

**b. Informal Contacts:**





May 5, Dr. Anna McClung met with a seedman from Northeast Arkansas interested in specialty rice varieties for specific ethnic market. Different rice varieties were cooked and tasted to show the wide range of qualities that are available.

May 18, Dr. Anna McClung provided a tour of the DBNRRC center and overview of research conducted at the center to The University of Arkansas Chancellor Joe Steinmetz and associated staff.

May 23, Dr. Anna McClung provided information and research contacts for a scientist at Jain University in India on methodologies for assessing volatile compounds in rice.

May 26, 2016, Six European Union visitors involved in agricultural policy in Austria, Bulgaria, Czech Republic, Sweden, Bosnia/Herzegovina, and Serbia visited the DBNRRC in Stuttgart, AR. The group is participating in the International Visitor Leadership Program sponsored by the US State Department and were led by Kent Moorhead (Dept. State). The purpose of the training program is to expose the visitors to how federal, regional and local programs for agricultural research, inspection, trade promotion and resource conservation help ensure U.S. agricultural competitiveness in the global marketplace. Dr. Anna McClung presented an overview of research at the center and issues facing rice producers in the USA. They met directly with Dr. Ming-Hsuan Chen on rice nutritional quality, Dr. David Gealy regarding weed management, Dr. Yulin Jia on rice disease control, and Dr. Jeremy Edwards on use of genomic information to enhance rice breeding.

May 27, Dr. Ming-Hsuan Chen provided a protocol to a breeder how to conduct a quick colorimetric method detecting waxy rice from other type of rice.

May 31, Dr. Shannon Pinson conferred with a scientist with Bayer BioScience Pvt. Ltd in India as to how to select rice breeding progeny for kernel fissure resistance.

**c. New MTAs**

**d. Germplasm Exchanged:**

During May, 1,218 rice accessions from the Genetics Stocks *Oryza* (GSOR) collection were distributed to researchers in the US and Belgium.

**5. Educational Outreach**

On May 5, Research Plant Pathologist Dr. Yulin Jia became a mentor in the 2016 Federal Asian Pacific American Council (FAPAC) Career Development Mentoring Program. The





objectives of FAPAC mentoring are 1) serving as a resource for self-improvement and professional development; and 2) providing a forum to discuss mentees' concerns in regard to becoming a high performer in Federal Government; and enriching individual readiness for hiring and career advancement opportunities via state-of-the art resume and interview practices. Dr. Jia was assigned a mentee, and attended a kick off meeting from 1 to 5 pm on June 3 at USDA, Washington DC via telephone conference.

## **6. Awards/Honors**

