38th Annual 
Rice Technical 
Working Group 

February 24-27, 2020 
Orange Beach, Alabama 

DRAFT 

MISSISSIPPI STATE UNIVERSITY ™
The 2020 Rice Technical Working Group would like to extend a warm and professional note of appreciation to this year’s conference sponsors. Without their support, this conference, it’s shared knowledge, and camaraderie would not be possible.

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Manoch Kongchum – Louisiana
Bobby Golden – Mississippi
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Mallory Everett – Industry

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Tom Allen – Mississippi
Lindsey Bell – Mississippi
Tameka Sanders – Mississippi

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Blake Wilson – Louisiana
Jeff Gore – Mississippi
Jim Heiser – Missouri
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Mallory Everett – Industry

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Adam Famoso – Louisiana
Karen Moldenhauer – Arkansas
Ed Redona – Mississippi
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Xueyan Sha – Arkansas
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Trevis Huggins – USDA-ARS

National Germplasm Resources Laboratory:
Gary Kinard – USDA-ARS

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Jarrod Hardke – Arkansas
Kent McKenzie – California
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Bobby Golden – Mississippi
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RTWG Panel Chairs:
Certified Crop Advisor/Extension Training
Jason Bond and Ben Lawrence, Mississippi

Water Symposium
Bobby Golden and Justin McCoy, Mississippi

Student Contest Panel
Wayne Ebelhar, Mississippi

Breeding, Genetics, and Cytogenetics
Ed Redoña, Mississippi

Economics and Marketing
Steve Martin and Brian Mills, Mississippi

Plant Protection
Jeff Gore and Tom Allen, Mississippi

Post-harvest Quality, Utilization, and Nutrition
Zhongli Pan, California

Rice Culture
Bobby Golden, Mississippi

Rice Weed Control and Growth Regulation
Ben Lawrence, Mississippi
# 2020 RTWG General Program

## Monday, February 24

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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Room</th>
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<tbody>
<tr>
<td>7:00 a.m. – 8:30 a.m.</td>
<td>Executive Committee</td>
<td>Sand Dollar</td>
</tr>
<tr>
<td>8:00 a.m. – 5:00 p.m.</td>
<td>Registration/Presentation Loading</td>
<td>Reg. Desk</td>
</tr>
<tr>
<td>9:00 a.m. – 12:15 p.m.</td>
<td>Certified Crop Advisor/Extension Training</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td>10:00 a.m. – 1:00 p.m.</td>
<td>Panel Chair Meeting</td>
<td>Emerald</td>
</tr>
<tr>
<td>10:00 a.m.–12:00 p.m.</td>
<td>Germplasm Committee</td>
<td>Sand Castle I</td>
</tr>
<tr>
<td>1:00 p.m.– 5:00 p.m.</td>
<td>Research Poster Set Up</td>
<td>Salon E,F,G,H</td>
</tr>
<tr>
<td>1:35 p.m.– 5:00 p.m.</td>
<td>Water Rice Symposium</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td>3:3 p.m.– 5:00 p.m.</td>
<td>Rice Acreage Committee</td>
<td>Emerald</td>
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<tr>
<td>6:00 p.m.– 8:00 p.m.</td>
<td>Opening Reception</td>
<td>Beach Deck</td>
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## Tuesday, February 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Room</th>
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</thead>
<tbody>
<tr>
<td>7:00 a.m.– 7:45 a.m.</td>
<td>Student Contest Judges’ Meeting</td>
<td>Sand Dollar</td>
</tr>
<tr>
<td>7:30 a.m.– 5:00 p.m.</td>
<td>Research Posters Displayed</td>
<td>Salon E,F,G,H</td>
</tr>
<tr>
<td>8:00 a.m.– 5:00 p.m.</td>
<td>Registration/Presentation Loading</td>
<td>Reg. Desk</td>
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<tr>
<td>8:00 a.m.–10:00 a.m.</td>
<td>Opening Session</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td>10:00 a.m.–12:00 p.m.</td>
<td>Research Poster Session (authors present)</td>
<td>Salon E,F,G,H</td>
</tr>
<tr>
<td>12:00 p.m.–1:25 p.m.</td>
<td>Industry Luncheon</td>
<td>Grand Reef</td>
</tr>
<tr>
<td>1:35 p.m.–5:20 p.m.</td>
<td>Concurrent Student Oral Contests</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td></td>
<td>Rice Culture</td>
<td>Sand Castle I</td>
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<tr>
<td></td>
<td>Plant Protection</td>
<td>Night Reef I, II</td>
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<tr>
<td></td>
<td>Weed Control and Growth Regulation</td>
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<tr>
<td>1:35 p.m – 5:00 p.m.</td>
<td>Concurrent Technical Sessions</td>
<td>Sand Castle I</td>
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<tr>
<td></td>
<td>Breeding, Genetics, and Cytogenetics</td>
<td>Sand Dollar</td>
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<tr>
<td></td>
<td>Economics and Marketing</td>
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**Wednesday, February 26**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Room</th>
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<tbody>
<tr>
<td>7:30 a.m. – 10:00 a.m.</td>
<td>Registration</td>
<td>Reg. Desk</td>
</tr>
<tr>
<td>7:30 a.m. – 11:00 a.m.</td>
<td>Research Posters Displayed</td>
<td>Salon E,F,G,H</td>
</tr>
<tr>
<td>8:15 a.m. – 12:00 p.m.</td>
<td>Concurrent Technical Sessions</td>
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<tr>
<td></td>
<td>Breeding, Genetics, and Cytogenetics</td>
<td>Sand Castle II</td>
</tr>
<tr>
<td></td>
<td>Plant Protection</td>
<td>Sand Castle I</td>
</tr>
<tr>
<td></td>
<td>Postharvest Quality, Utilization, and Nutrition</td>
<td>Sand Dollar</td>
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<tr>
<td></td>
<td>Rice Culture</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td></td>
<td>Weed Control and Growth Regulation</td>
<td>Night Reef I, II</td>
</tr>
<tr>
<td>11:00 a.m. – 12:00 p.m.</td>
<td>Remove Research Posters</td>
<td></td>
</tr>
<tr>
<td>12:00 a.m. – 1:30 p.m.</td>
<td>Awards Luncheon</td>
<td>Grand Reef</td>
</tr>
<tr>
<td>1:35 a.m. – 5:20 p.m.</td>
<td>Concurrent Technical Sessions</td>
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</tr>
<tr>
<td></td>
<td>Breeding, Genetics, and Cytogenetics</td>
<td>Sand Castle II</td>
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<tr>
<td></td>
<td>Plant Protection</td>
<td>Sand Castle I</td>
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<tr>
<td></td>
<td>Rice Culture</td>
<td>Salon A,B,C,D</td>
</tr>
<tr>
<td></td>
<td>Weed Control and Growth Regulation</td>
<td>Night Reef I, II</td>
</tr>
<tr>
<td>5:30 p.m. – 7:30 p.m.</td>
<td>Closing Reception</td>
<td>Beach Deck</td>
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</table>

**Thursday, February 27**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Room</th>
</tr>
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<tbody>
<tr>
<td>8:00 a.m. – 10:00 a.m.</td>
<td>Executive Committee</td>
<td>Sand Castle I</td>
</tr>
<tr>
<td>10:00 a.m. – 11:00 a.m.</td>
<td>Closing Business Meeting</td>
<td>Sand Castle I</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>Adjourn</td>
<td></td>
</tr>
</tbody>
</table>
Irrigation management influences every other aspect of rice production. In recent years, much attention has been given to irrigation use amounts and its influence on rice yield in traditional rice management systems. Newer rice irrigation techniques (AWD and furrow irrigation) to the midsouthern U.S. have the potential to alter many aspects of rice production, including fertilizer management and greenhouse gas emissions from rice paddies. This symposium will address knowledge gained in the use of alternative rice management strategies in comparison to traditional management as well as the pitfalls and successes associated with each system.

Moderator: Drew Gholson, Mississippi State University

1:35 p.m.–1:40 p.m. Opening Remarks
   D. Gholson

1:40 p.m.–2:00 p.m. Improving the Furrow Irrigated Rice System.
   C. Henry, R. Mane, G. Simpson, J. Rix, N. Blankenship

2:00 p.m.–2:20 p.m. Evaluation of N Fertilization in Furrow Irrigated Rice.
   D. Harrell, A. Coker, M. Kongchum

2:20–2:40 p.m. Comparisons of Field-Scale Irrigation use Efficiencies for Alternative Rice Irrigation Practices.
   J. Massey, M. Reba, A. Adviento-Borbe, R. Sullivan, R. Moore

2:40 p.m.–3:00 p.m. Contribution of Winter Cover Crop on Ammonia and Greenhouse Gas Emissions in Furrow Irrigated Rice Systems.
   S. Karki, A. Adviento-Borbe, J. Massey, M. Reba

3:00 p.m.–3:20 p.m. Break

3:20 p.m.–3:40 p.m. Comparison of Field-Scale Methane Reductions
with Alternate Irrigation Techniques in U.S. Mid-South Rice Production.

M. Reba, B. Fong, C. Reavis, B. Runkle, K. Suvocarev, A. Adviento-Borbe, J. Massey


A. Adviento-Borbe, S. Kharki, B. Levenbach, J. Massey, M. Reba, B. Ottis

4:00 p.m.–4:20 p.m. Good to be Green: Enhancing Rice Production and Ecosystem Services with Algae.

D. Heuschele, M. Reba, B. Runkle

4:20 p.m.–4:40 p.m. Comparison of Water-Saving Irrigation Practices in Rice Production in Arkansas using Two Farm Sustainability Tools.

B. Moreno-Garcia, C. Reavis, K. Suvocarev, B. Runkle

4:40 p.m.–5:00 p.m. Open Discussion

5:00 p.m. Adjourn

Tuesday, February 25

Opening Session- Salon A,B,C,D

8:00 a.m. Opening Remarks/Panel Business

Jason Bond, Mississippi State University

8:05 a.m.–8:30 a.m. Opening Business Meeting

Jason Bond, Mississippi State University
Bruce Linquist, UC Davis

8:30 a.m.–8:50 a.m. Mississippi Welcome and Overview

Steve Martin, Mississippi State University

8:50 a.m.–9:10 a.m. A Simple Road Map to Better Communication.

Kenner Patton, Communications Coordinator, Mississippi State University, Delta Research and Extension Center

9:10 a.m. –10:00 a.m. Opening Session Keynote Address:

The Changing Landscape for Land-Grant Universities.

David Shaw, Provost, Mississippi State University

10:00 a.m. Adjourn

10:00 a.m.–12:00 p.m. Research Poster Session (authors present)
Industry Luncheon- Grand Reef
12:00 p.m. Luncheon
12:30 p.m.–12:40 PM Welcome
Mallory Everett, Valent USA
12:40 p.m.–1:25 p.m. Industry Luncheon Keynote Address: From RTWG Chair to the Boardroom, My Perspective on Challenges and Opportunities in the USA Rice Industry.
Tim Walker, General Manager, Horizon Ag LLC

Student Oral Contest Panel
Plant Protection- Sand Castle I
Moderator: Jeff Gore, Mississippi State University
1:35 p.m.–1:40 p.m. Opening Remarks/Panel Business
J. Gore
1:40 p.m.–2:00 p.m. Evaluation of Strategy and Efficacy of Insecticide Options for Control of Rice Billbug Spenophorous pertinax in Furrow Irrigated Rice Production Systems in Arkansas.
C. Floyd, G. Lorenz, N. Bateman, B. Thrash, J. Hardke, N. Joshi, N. Taillon, S. Felts, W. Plummer, W. Plummer, J. McPherson, C. Rice
2:00 p.m.–2:20 p.m. Field Evaluation of Barnyardgrass Accessions to Loyant and other Rice Herbicides.
G. Priess, J. Norsworthy, L. Piveta, C. Brabham, L. Barber, T. Butts
2:20 p.m.–2:40 p.m. Tolerance to Insect Pests Among Commonly Grown Rice Cultivars in Louisiana.
J. Villegas, B. Wilson, M. Stout
2:40 p.m.–3:00 p.m. Comparison of Thiobencarb and Clomazone in Mississippi Rice Herbicide Programs.
3:00 p.m.–3:20 p.m. Break
3:20 p.m.–3:40 p.m. Genetic Diversity and Pathogenicity of Rhizoctonia solani AG-11 Associated with Rice Seedling Diseases in the Southern U.S.
S. Gaire, X. Zhou, Y. Jo
3:40 p.m.–4:00 p.m. Evaluation of Preplant and Preemergence Application of ALS Herbicides in No-Till Rice.
M. Zaccaro, J. Norsworthy, C. Sandosky, M. Houston

4:00 p.m.–4:20 p.m. Evaluation of Simulated Rainfall Timing on Fungicide Efficacy in Rice.
W. Eubank, B. Golden, J. McCoy, J. Mansour, T. Richmond, B. Peralisi, L. Bell, F. Carey

4:20 p.m.–4:40 p.m. Rice Response to Postemergence Herbicides Following Exposure to Paraquat.
T. Sanders, B. Lawrence, M. Edwards, J. Peeples, J. Bond

4:40 p.m.–5:00 p.m. Assessing the Feasibility of Using Remote Sensing to Predict Populations of Lissorhoptrus oryzophilus (Coleoptera: Curculionidae) in Louisiana Rice.
M. Mulcahy, B. Wilson, R. Diaz, T. Reagan

5:00 p.m.–5:20 p.m. Rice Plant Biomass Traits Influencing Rhizosphere Soil Microbial Community Composition.

5:20 p.m. Open Discussion/Adjourn

Student Oral Contest Panel
Rice Culture- Salon A,B,C,D
Moderator: Bobby Golden, Mississippi State University

1:35 p.m.–1:40 p.m. Opening Remarks/Panel Business
B. Golden

1:40 p.m.–2:00 p.m. Evaluation of Alternative Fertilizer Sources in Delayed-Flood Rice Culture.
T. Richmond, B. Golden, J. McCoy, J. Mansour, B. Peralisi, W. Eubank, L. Bell

2:00 p.m.–2:20 p.m. Nitrogen Management in Furrow-Irrigated Rice Production.

2:20 p.m.–2:40 p.m. Evaluation of GreenSeeker and UAV Derived Normalized Difference Vegetation Index (NDVI).
A. Coker, D. Harrell, M. Kongchum
2:40 p.m.–3:00 p.m. Starter Nitrogen Source and Pre-Flood Nitrogen Rate Effects in Rice Grown on Clayey Soils.
   **L. Martin,** N. Slaton, B. Golden, J. Hardke, T. Roberts, R. Norman

3:00 p.m.–3:20 p.m. **Break**

3:20 p.m.–3:40 p.m. The Effects of Late Season Nitrogen Application on Milling Quality in Hybrid Rice.
   **D. Bolton,** D. Bolton, T. Roberts, J. Hardke, K. Hoegenauer, B. Hurst, D. Dillion, R. Mulloy

3:40 p.m.–4:00 p.m. Optimal Drill-Seeded Rice-Planting Window Based on Eight Years of a Date of Planting Experiment in South Louisiana.
   **T. Cerioli,** T. Gentimis, S. Linscombe, A. Famoso

4:00 p.m.–4:20 p.m. Impact of Rice Planting Arrangement on Stand Density and Grain Yield.

4:20 p.m.–4:40 p.m. Methylmercury Dynamics in California Rice Systems.
   **L. Salvato,** M. Marvin-DiPasquale, J. Fleck, S. McCord, B. Linquist

4:40 p.m.–5:00 p.m. Comparing the Effects of Multiple Planting Dates on Rice Grain Yield and Quality.
   **C. Hemphill,** M. Esguerra

5:00 p.m.–5:20 p.m. Open Discussion

5:20 p.m. Adjourn

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**Student Oral Contest Panel**

**Weed Control and Growth Regulation—Night Reef I, II**

**Moderator:** Ben Lawrence, Mississippi State University

1:35 p.m.–1:40 p.m. Opening Remarks/Panel Business
   **B. Lawrence**

1:40 p.m.–2:00 p.m. The Effect of Reduced Rates of Florpyrauxifen-benzyl on Soybean Yield Components.
   **D. Walker,** E. Webster, B. McKnight, S. Rustom, C. Webster, B. Greer
2:00 p.m.–2:20 p.m.  Rice Varietal Tolerance to Single and Sequential Loyant Applications.
   

2:20 p.m.–2:40 p.m.  Benzobicyclon for Weedy Rice Control in Provisia Rice System.
   

2:40 p.m.–3:00 p.m.  Palmer Amaranth Response to Loyant in Furrow-Irrigated Rice.
   

3:00 p.m.–3:20 p.m.  **Break**

3:20–3:40 p.m.  Weed Control in Furrow-Irrigated Rice in Mississippi.
   

3:40 p.m.–4:00 p.m.  Overlaying Residual Herbicides in Louisiana Upland Rice Production.
   
   **C. Webster**, E. Webster, B. McKnight, S. Rustom Jr., B. Greer, D. Walker

4:00 p.m.–4:20 p.m.  Does Dicamba Exposure During Rice Reproductive Development Affect Maturity and Grain Yield?
   

4:20 p.m.–4:40 p.m.  Response of Rice (Oryza sativa) to Drift Rates of Glyphosate and Dicamba Applied at Multiple Growth Stages.
   
   **O. France**, J. Norsworthy, L. Piveta, J. Beesinger, M. Houston

4:40 p.m.–5:00 p.m.  Halosulfuron plus Prosulfuron for Residual Weed Control in ACCase-Resistant Rice.
   
   **R. Kelly**, B. Lawrence, M. Edwards, J. Peoples, J. Bond

5:00 p.m.–5:20 p.m.  Evaluation of a Seed Treatment for Safening Rice to Formulations of Soil-Applied Acetochlor.
   

5:20 p.m.  Open Discussion/Adjourn
Tuesday, February 25
Technical Sessions
Economics and Marketing Panel- Sand Dollar
Moderator: Brian Mills, Mississippi State University

1:35 p.m. Opening Remarks/Panel Business
  B. Mills

1:40 p.m.–2:00 p.m. Panel Data Analysis of Row Rice Production System.
  R. Mane, B. Watkins, C. Henry

2:00 p.m.–2:20 p.m. An Evaluation of Changes in Rice Acreage and Irrigation Water Sustainability in Arkansas.
  T. Gautam, K. Watkins

2:20 p.m.–2:40 p.m. Impacts of Arkansas Rice Foundation Seed Sales on Proportions of Acres Planted to Public and Proprietary Rice Lines in Arkansas.
  K. Watkins, R. Mane, D. Wisdom, G. Bathke

2:40 p.m.–3:00 p.m. Impact of Commodity Programs of the 2018 Farm Bill on Arkansas Rice Farms.
  A. Durand-Morat, G. Wilson, B. Watkins, E. Wailes

3:00 p.m.–3:20 p.m. Break

  N. Childs

3:40 p.m.–4:00 p.m. Economic Forces and Assumptions Driving USDA’s 2019/20 Global Rice Market Baseline Forecasts.
  N. Childs

4:00 p.m.–4:20 p.m. Do Rice Markets in Ghana Work Efficiently?

4:20 p.m.–4:40 p.m. Panel Business Meeting

4:40 p.m. Adjourn
Technical Sessions

Breeding, Genetics, and Cytogenetics Panel—Sand Castle II

Moderator: Ed Redoña, Mississippi State University

1:35 p.m.–1:40 p.m. Afternoon Opening Remarks/Panel Business

E. Redoña

1:40 p.m.–2:00 p.m. Curating the USDA-ARS Rice Germplasm Collection: Efficient Accession Management and Characterization through Phenotyping and Genotyping.


2:00 p.m.–2:20 p.m. Evaluation and Utilization of Novel Genetic Variation in Rice.

T. Tai

2:20 p.m.–2:40 p.m. Gene Disruption by Structural Mutations Drives Selection in US Rice Breeding Over the Last Century.

J. Vaughn, J. Stein, W. Korani, J. Edwards, D. Peterson, S. Simpson, J. Grimwald, D. Ware, A. McClung, B. Scheffler

2:40 p.m.–3:00 p.m. Public Rice Breeding at Crossroads - Challenges and Opportunities

X. Sha, B. Beaty, J. Bulloch

3:00 p.m.–3:20 p.m. Break

3:20 p.m.–3:40 p.m. A New Haplotype of Rice Blast Resistance Gene Ptr in Weedy Rice Confers Resistance to the Most Virulent Race of M. oryzae

Y. Jia, H. Zhao, Y Liu

3:40 p.m.–4:00 p.m. A Practical Implementation of Genomic Selection for Louisiana Rice Variety Development

C. Hernandez, A. Famoso, K. Robbins, S. McCouch, B. Angira

4:00 p.m.–4:20 p.m. Ricebase Update: Comparative GWAS Annotation for Gene Discovery and Marker Development

J. Edwards, A. Jackson, M. Jia, G. Eizenga

4:20 p.m.–4:40 p.m. Prospective Genomic Regions with Superior Alleles for Seedling Stage Salt Tolerance Identified via GWAS in USDA Rice Mini-core Collection

J. Edwards, G. Tran, A. Jackson, A. McClung
4:40 p.m.–5:00 p.m. The Use of an Enriched-GWAS to Delimit the Region of a Major QTL for Anaerobic Germination Tolerance Derived from an Indica Rice, Ma-Zhan Red

**E. Septiningsih, H. Tnani, D. Chebotarov, R. Thapa, J. Ignacio, W. Israel, S. Dixit, T. Kretzschmar**

5:00 p.m.–5:20 p.m. Identification of a Novel Gene Controlling Cercospora Resistance and the Characterization of Resistance within U.S. Breeding Germplasm

**C. Addison, B. Angira, D. Groth, A. Famoso**

5:20 p.m. Open Discussion/Adjourn

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**Wednesday, February 26**

**Technical Sessions**

**Breeding, Genetics, and Cytogenetics Panel-Sand Castle II**

**Moderator:** Ed Redoña, Mississippi State University

8:15 a.m.–8:20 a.m. Morning Opening Remarks/Panel Business

**E. Redoña**

8:20 a.m.–8:40 a.m. GWA Mapping of Cold Tolerance Traits at the Seedling Stage and Validation in Two Rice Biparental Mapping Populations.

**G. Eizenga, N. Shimoyama, A. Jackson, J. Edwards, M. Schlappi**

8:40 a.m.–9:00 a.m. Identification of Genomic Regions Associated With Yield-Related Traits in Rice.


9:00 a.m.–9:20 a.m. Mapping Quantitative Trait Loci for Alkalinity Stress Tolerance in Rice.

**L. Singh, U. Bhattarai, S. Chapagain, P. Subudhi**

9:20 a.m.–9:40 a.m. QTL Mapping and Genomic Prediction of Seedling Root Architectural Traits in a Rice RIL Population.

**S. Sharma, J. Edwards, D. Gealy, S. Pinson**
9:40 a.m.–10:00 a.m. Identification, Characterization, and SNP Marker Validation for GS3 and a Novel Grain Shape Gene in U.S. Rice.

B. Anjira, T. Cerioli, J. Ham, A. Famoso

10:00 a.m.–10:20 a.m. Break

10:20 a.m.–10:40 a.m. Hybrid Rice Breeding at Texas A&M AgriLife Research: Breeding for Grain Quality and Improved Yield using Heterotic Groups.


10:40 a.m.–11:00 a.m. Development and Evaluation of Elite Germplasm for Louisiana Hybrid Rice.

L. Gaspar, J. Oard

11:00 a.m.–11:20 a.m. Development of Candidate Provisia Hybrids for the Louisiana Rice Industry

D. Rebong, J. Oard, D. Groth, A. Famoso, B. Angira

11:20 a.m.–11:40 a.m. Characterization and Application of Arkansas Male Sterile Lines for Hybrid Rice Production

D. North, S. Fei, E. Shakiba, K. Moldenhauer, P. Counce

11:40 a.m.–12:00 p.m. Development and Evaluation of Louisiana Clearfield Hybrids

P. Mosquera, J. Oard

12:00 p.m.–1:30 p.m. Awards Luncheon

1:35 p.m.–1:40 p.m. Afternoon Opening Remarks/Panel Business

E. Redoña

1:40 p.m.–2:00 p.m. Yield, Apparent Amylose Content, Pasting Properties, Cooking Quality, and Fatty Acid Profile of High Protein Rice.

I. Wenefrida, H. Utomo

2:00 p.m.–2:20 p.m. Cultivar Differences in Inorganic Arsenic Accumulation in the Grain as Influenced by Irrigation Management and Soil Amendments.

A. McClung, C. Green, R. Chaney

2:20 p.m.–2:40 p.m. Genetic Loci and Agronomic Traits Impacting Grain-Arsenic Concentrations Revealed by GWA and Biparental QTL Analyses.
Technical Sessions

Plant Protection Panel- Sand Castle I

Moderators: James Villegas and Megan Mulcahy, Louisiana State University

8:15 a.m.–8:20 a.m.  Morning Opening Remarks/Panel Business  
J. Villegas

8:20 a.m.–8:40 a.m.  Rice Disease Control Review.  
D. Groth

8:40 a.m.–9:00 a.m.  Excalia®: A New Fungicide for Rice Sheath Blight.  
K. Seebold, M. Everett, C. Meador, F. Carey
9:00 a.m.–9:20 a.m. Endigo ZCX: Enhanced Control of Rice Insect Pests.  
**R. Jackson**, B. Black, S. Moore, J. Koenig

**M. Van Weelden**, R. Cherry, M. Karounos

9:40 a.m.–10:00 a.m. Rice Stink Bug Management in Arkansas.  

10:00 a.m.–10:20 a.m. Break

10:20 a.m.–10:40 a.m. Toward Understanding of Rice Innate Immunity to Rice Blast Fungus.  
**Y. Jia**, X. Wang, Y. Wamishe, B. Valent

10:40 a.m.–11:00 a.m. Identification of GWA-QTLs and Germplasm Useful for Enhancing Sheath Blight Resistance.  
**G. Eizenga**, S. Pinson, D. Li, F. Zhang, J. Edwards, A. Jackson

11:00 a.m.–11:20 a.m. Development and Characterization of Sheath Blight-Resistant Lines.  

11:20 a.m.–11:40 a.m. Evaluation of Water Volume for Coverage in Fungicide Application to Manage Rice Sheath Blight.  
**Y. Wamishe**, T. Gebremariam, S. Belmar, C. Kelsey

11:40 a.m.–12:00 p.m. Recent Advances in USDA’s Blackbird Repellents Research  
**S. Werner**, S. DeLiberto

12:00 p.m.–1:30 p.m. Awards Luncheon

1:35 p.m.–1:40 p.m. Afternoon Opening Remarks/Panel Business  
**Moderators:** Chase Floyd, University of Arkansas  
Tom Allen, Mississippi State University

1:40 p.m.–2:00 p.m. Monitoring and Control of Armyworms in California Rice.  
**L. Espino**, I. Grettenberger

2:00 p.m.–2:20 p.m. Preference and Performance of the Rice Stink Bug, Oebalus pugnax, on Different Rice Cultivars  
**S. Bhavanam**, M. Stout

2:20 p.m.–2:40 p.m. Seed Treatment Combinations for Management of the Rice Insect Pest Complex in Louisiana.  
**B. Wilson**, J. Villegas, K. Landry, M. Mulcahy
2:40 p.m.–3:00 p.m. Update on Rice Planthopper/Delphacid in Texas.  

3:00 p.m.–3:20 p.m. **Break**

3:20 p.m.–3:40 p.m. Silicon: The Essential “Non-Essential” Nutrient for Rice.  
**M. Limmer**, A. Seyfferth

3:40 p.m.–4:00 p.m. Disease Resistance of Hybrid Rice and Inbred Rice on Sheath Blight and Narrow Brown Leaf Spot in Texas.  
**L. Wang**, J. Shi, X. Zhou

4:00 p.m.–4:20 p.m. In Vitro and Field Evaluation of Fungicides for Control of Rice Kernel Smut.  
**X. Zhou**, S. Uppala, B. Liu, Z. Guo, S. Gaire, X. Lei, L. Wang

4:20 p.m.–4:40 p.m. Zeltera® 3.2 FS: A New Fungicide Seed Treatment for Rice from Valent USA, LLC.  
**C. Meador**, D. Refsell, F. Carey, M. Everett

4:40 p.m.–5:00 p.m. Survey of Fungal Pathogens Associated with Rice Seedling Diseases in the Southern U.S.  
**S. Gaire**, X. Zhou, Y. Zhou, J. Shi, W. Kai

5:00 p.m.–5:20 p.m. Panel Business Meeting

5:20 p.m. Adjourn

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**Technical Sessions**

**Postharvest Quality, Utilization, and Nutrition Panel- Sand Dollar**

Moderator: Zhongli Pan

8:15 a.m.–8:20 a.m. Opening Remarks/Panel Business  
**Z. Pan**

8:20 a.m.–8:40 a.m. Effect of Nitrogen Fertilizer Rate and Timing on Grain Quality Parameters and Protein Composition of Rice Grown in Southeastern Australia.  
**R. Wood**, B. Dunn, D. Waters, C. Blanchard, P. Oli, J. Mawson

8:40 a.m.–9:00 a.m. Relating Moisture Content Reduction in a Drying Pass to Fissure Formation in Rough Rice.  
**Z. Odek**, T. Siebenmorgen
9:00 a.m.–9:20 a.m. Vegetative Water Stress Improves Milling Yields and Alters the Pasting Parameters of Rice.

R. Wood, B. Dunn, D. Waters, C. Blanchard, P. Oli, J. Mawson

9:20 a.m.–9:40 a.m. Differentiating Sub-population, Production Environment and Grain Chalk by Hyperspectral Imaging.


9:40 a.m–10:00 a.m. Sensory Evaluation of Non-Mutant Rice Varieties High in Apparent Amylose and Resistant Starch.

M. Chen, K. Bett-Garber, J. Lea, A. McClung, S. Linscombe

10:00 a.m.–10:20 a.m. Break

10:20 a.m.–10:40 a.m. Consistency of Rice Milling Quality: Results from USDA-FGIS Laboratory Mill and Commercial Mills.


10:40 a.m.–11:00 a.m. Real-time Monitoring and Early Detection of Insect Activity in Storage Rice using Imaging Technique.

R. Khir, Z. Pan

11:00 a.m.–11:20 a.m. Panel Business Meeting

11:20 a.m. Adjourn

**Technical Sessions**

**Rice Culture Panel- Salon A,B,C,D**

**Moderators: Justin McCoy, Mississippi State University and Brian Pieralisi, Mississippi State University**

8:15 a.m.–8:20 a.m. Morning Opening Remarks/Panel Business

J. McCoy

8:20 a.m.–8:40 a.m. Evaluation of Rice Irrigation Practices in Mississippi.

D. Gholson, L. Krutz, D. Roach, B. Golden, J. Bond

8:40 a.m.–9:00 a.m. Evaluating the Effect of Nanoagrichemicals on the Fate and Uptake of Arsenic in Rice.

F. Dou, X. Wang, F. Dou, X. Ma

RTWG 28 2020
9:00 a.m.–9:20 a.m. A Sensor Based Response Index to Guide Mid-Season N Fertilization.

**B. Linquist**, T. Rehman

9:20 a.m.–9:40 a.m. Using a Response Index and Greenseeker Handheld to Predict Rice Response to Midseason Nitrogen.


9:40 a.m.–10:00 a.m. Boot Nitrogen Applications for Hybrid Rice in a Direct-Seeded, Delayed Flood System.


10:00 a.m.–10:20 a.m. **Break**

10:20 a.m.–10:40 a.m. Effect of Cover Crop Mineralization on Soil N Supply.

**X. Li**, A. Tan, F. Dou

10:40 a.m.–11:00 a.m. Predicting Potassium Deficiency of Rice during Reproductive Growth using Y-Leaf Potassium Concentration.

**N. Slaton**, C. Gruener, T. Roberts, J. Hardke, A. Smartt

11:00 a.m.–11:20 a.m. Use of Sodium Chlorate as a Harvest Aid on Rice Cultivars Grown in Arkansas.


11:20 a.m.–11:40 a.m. Cultivating Flooded Rice as a Treatment Technology to Mitigate Phosphorus Loads from Agricultural Watershed.

**J. Bhadha**, A. Rabbany, M. Tootoonchi, L. Gonzalez, M. VanWeelden

11:40 a.m.–12:00 p.m. Effect of Soil Moisture, Nitrogen Rate, and Urease Inhibitor on Ammonia Volatilization.

**F. Dou**, Q. Tu, X. Li, Z. Dong

12:00 p.m.–1:30 p.m. Awards Luncheon

1:35 p.m.–1:40 p.m. Afternoon Opening Remarks/Panel Business

**B. Perialisi**

1:40 p.m.–2:00 p.m. Rice Seeding Depth Effects on Crop Response and Weed Management.

**A. Ceseski**, A. Godar, K. Al-Khatib
2:00 p.m.–2:20 p.m. Monitoring Spatial Variability and Yield in Air-Seeded Rice Fields Using Unmanned Aircraft Systems.
A. Hashem, B. Runkle, J. Massey, S. Green, A. Shew, B. Burns, M. Reba

2:20 p.m.–2:40 p.m. Physiological Response of Rice to Aminoethoxyvinyl glycine (AVG) under High Night Temperature.
A. Mohammed, L. Tarpley

2:40 p.m.–3:00 p.m. Soil Amendments to Reduce Heavy Metal Concentrations in Rice Grain.
T. Roberts, J. Hardke, K. Hoegenauer, D. Bolton, J. Shafer

3:00 p.m.–3:20 p.m. Break

3:20 p.m.–3:40 p.m. Arkansas Irrigation Yield Contest: Novel Approach to Promote IWM in Rice.
G. Simpson, C. Henry, J. Rix, N. Blankenship, C. Bowie

3:40 p.m.–4:00 p.m. Panel Business Meeting
4:00 p.m. Adjourn

**Technical Sessions**

**Weed Control and Growth Regulation Panel**

Night Reef I, II

**Moderators:** Hunter Bowman, Mississippi State University and Read Kelly, Mississippi State University

8:15 a.m.–8:20 a.m. Morning Opening Remarks/Panel Business
H. Bowman

8:20 a.m.–8:40 a.m. Rice Response to Sub-Lethal Concentrations of Non-Target Herbicides.
B. Lawrence, J. Bond, B. Golden, T. Allen, M. Edwards, J. McCoy

8:40 a.m.–9:00 a.m. Rice Response to Late-Season Off-Target Herbicide Movement at Multiple Application Timing.
J. McCoy, B. Golden, J. Bond, T. Bararpour, D. Dodds, J. Gore, B. Lawrence

9:00 a.m.–9:20 a.m. Arkansas Benzobicyclon E.U.P. Results and Technical Profile.
C. Sandoski, C. Dyer, A. Takahashi

9:20 a.m.–9:40 a.m. Weed Control in Arkansas Rice.
T. Barber

9:40 a.m.–10:00 a.m. Assessment of Weed Suppression and Straight-head Occurrence in Plastic Mulched and High Seed Rate Water Seeded Rice Under Organic Condition.

B. Huang, G. Mahato, A. McClung, X. Zhou

10:00 a.m.–10:20 a.m. Break

10:20 a.m.–10:40 a.m. Effect of AWD Irrigation on Yield Components and Biological Responses of Recurrent Inbred Lines from a Weed-Suppressive Indica x Tropical Japonica Mapping Population.

D. Gealy, J. Rohila

10:40 a.m.–11:00 a.m. Toward Understanding the Extent of Damage to Rice Caused by Early Bloom of Nuisance Algae.

S. Ohadi, J. Madsen, G. Laguer, K. Al-Khatib

11:00 a.m.–11:20 a.m. Louisiana Benzobicyclon E.U.P. Results.

E. Bergeron, C. Dyer, A. Takahasi

11:20 a.m.–11:40 a.m. What Spray Volume is that Plane Really Applying?

F. Carey, M. Everett, Chris Meador

11:40 a.m.–12:00 PM Open Discussion/Adjourn

12:00 p.m.–1:30 PM Awards Luncheon

1:35 p.m.–1:40 p.m. Afternoon Opening Remarks/Panel Business

R. Kelly

1:40 p.m.–2:00 p.m. Weed Control in Mississippi Rice.

J. Bond

2:00 p.m.–2:20 p.m. Comparison of Preplant Incorporated and Preemergence Residual Herbicides in Rice.

L. Piveta, J. Norsworthy, J. Patterson, M. Zaccaro

2:20 p.m.–2:40 p.m. Programs for Effective Weed Control in Furrow-Irrigated Rice.

T. Barber, J. Norsworthy, Z. Hill, A. Ross

2:40 p.m.–3:00 p.m. Inheritance of Resistance and Response of Provisia Rice to Quizalofop-P-Ethyl Under U.S. Field Conditions.

J. Camacho, S. Linscombe, E. Webster, J. Oard

3:00 p.m.–3:20 p.m. Break

3:20 p.m.–3:40 p.m. Seedbank Longevity of Cultivated and Weedy Rice in Till and No-Till Cropping Systems

X. Gu, M. Mispan, B. Turnipseed
3:40 p.m.–4:00 p.m. Notable Insights from Arkansas Rice Weed Control and Tolerance Research.  
**J. Norsworthy, T. Butts, T. Barber**

4:00 p.m.–4:20 p.m. Weed Control in Louisiana Rice.  
**E. Webster**

4:20 p.m.–4:40 p.m. Remote Sensing of Weedy Rice in California Rice: Challenges and Opportunities.  
**W. Brim-DeForest, S. Hogan, L. Espino**

4:40 p.m.–5:00 p.m. Panel Business Meeting

5:00 p.m. Adjourn

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**Research Poster Session-**  
**Salon E,F,G,H**

Authors present Tuesday, February 25 10:00 AM to 12:00 PM.

An * at the beginning of the poster title denotes student contest participant.

**Breeding, Genetics, and Cytogenetics**

1. *Latin American Grain Quality.*  
   **R. Guerra, A. Famoso**

2. Percentages of Chalky and Whole Milled Grains in Rice Cultivars at Different Moisture Concentrations.  
   **S. Samonte, D. Sanchez, J. Alpuerto, L. Holgate, P. Croaker**

3. Variation in Grain Quality of Top, Middle, and Bottom Portions of Panicles in Chalky and Chalkyless Rice Cultivars.  
   **S. Samonte, J. Alpuerto, D. Sanchez, L. Holgate, P. Croaker**

   **T. Tai, T. Butterfield**

5. Identification and Characterization of Rice Mutants Altered in Uptake of Metalloid Elements.  
   **T. Tai, H. Kim, S. Magee**

6. Identification and Characterization of Rice Mutants with Altered Alkali Digestion Trait.  
   **T. Tai, H. Kim, R. Imatong**

   **A. Borjas, A. Famoso, B. Anjira, J. Oard, P. Mosquera**
   J. Ham, J. Ontoy, B. Shrestha, B. Angira, A. Famoso

9. RNA-Seq Reveals Differential Expressed Genes in Two Rice Genotypes with Contrasting Response to Nitrogen Stress.
   R. Garcia, S. Coronejo, R. Tapia, P. Subudhi

10. Characterization and Identification of Salt Tolerant Breeding Lines from Several Mini MAGIC Populations in Rice.
    S. Chapagain, R. Garcia, L. Singh, S. Coronejo, J. Concepcion, P. Subudhi

    A. Mohammed, H. Alawadi, C. Harper, R. Tabien, L. Tarpley

    A. Adviento-Borbe, K. Mendez, W. Larazo, M. Adviento-Borbe, J. Massey, A. Lorence

    B. Beaty, J. Bulloch, X. Sha


15. Genomic Prediction for Main Culm Panicle Node Number, Maximum Node Production Rate and Degree Days to Heading in Inbred and Hybrid Rice Lines.

16. Field and Data Collection Practices of the LSU Rice Breeding Program.
    G. Guidry, B. Williams, C. Conner, K. Bearb, J. Dartez, B. Angira, A. Famoso

17. Estrela/NSFTV199 Germplasm Selected for Panicle Architecture Traits.
    G. Eizenga, A. McClung

    H. Box, Y. Jia, M. Jia, A. Sies, N. Herrings, Z. Yan, T. Bianco

19. Recent Commercial Production of High Protein Rice and Their Prospects Beyond Its Conventional Use.
    I. Wenefrida, G. Zaunbrecher, H. Dugas, H. Utomo

20. Grain Quality Evaluation under Normal and Low-Carbohydrate Demand in Chalky and Chalkyless Rice Cultivars.
    J. Alpuerto, S. Samonte, D. Sanchez, L. Holgate, P. Croaker

    J. Alpuerto, S. Samonte, D. Sanchez, L. Holgate, P. Croaker
22. The Art of Crossing Rice.
   **J. Bulloch**, B. Beaty, X. Sha

23. Differential Rice Cultivar-Specific Responses to CO\textsuperscript{2} Levels Affect High Temperature Induced Grain Chalk Formation.
   **J. Barnaby**, A. McClung, W. Kim, L. Ziska, D. Fleisher, V. Reddy

24. LSU AgCenter High-Throughput Molecular Breeding Laboratory Overview.
   **B. Angira**, J. Dartez, A. Famoso

   **O. Manangkil**, M. Banting

   **O. Manangkil**, S. Abdula

27. In Search of DNA Markers Associated with Milled Rice Amylose Concentration.

   **T. De Leon**, C. Andaya, S. Talukder, K. McKenzie, V. Andaya

29. Development of Multi-Parent Rice Lines from Eight United States Elite Varieties
   **T. Cerioli**, B. Angira, J. Dartez, A. Famoso

30. Determining Rice Blast Disease Resistance Conferred by the Pi-40 Gene.

   **W. Smith**, J. Glenn, C. Lanford, T. Tradesco, S. Lanford, E. Redona

32. Genetic Variation of Resistant Starch, Baking Characteristics, and Lipid Content Among Advanced High Protein Rice Lines.
   **H. Utomo**, I. Wenefrida

33. The Journey of a Rice Variety Through the Arkansas Long-Grain Breeding Program.

34. Identification of Genetic Sources of Restorability in Arkansas Restorer Rice Plants.
   **O. Azapoglu**, V. Srivastava, X. Sha, K. Brye, E. Shakiba

   **M. Adviento-Borde**, W. Larazo, C. Quiñones, K. Mendez, R. Harris, S. Cunningham, Z. Campbell, C. Aniemena, K. Medina-Jimenez, H. Walia, A. Lorence
36. Seed Increase of Six Temperature-Sensitive Genic Male-Sterile (TGMS) Lines for Parental Hybrid Rice.
   **Z. Yan, L.T. Wilson, E. Christensen, L. Martin, S. O. PB. Samonte**

**Economics and Marketing**

37. Phenotypic Response of California Rice Varieties to Cold Stress during Seed Germination, Seedling and Reproductive Stages.
   **T. De Leon, C. Andaya, S. Talukder, K. McKenzie, V. Andaya**

   **M. Deliberto, B. Hilbun**

**Plant Protection**


40. Efficacy of Selected Foliar Insecticides Applied Pre- and Post-Flood for Control of Rice Water Weevil.
   **C. Rice, N. Taillon, N. Bateman, G. Lorenz, B. Thrash, S. Felts, W. Plummer, J. McPherson, W. Plummer, C. Floyd**

41. Effects of Defoliation on Growth and Yield in Rice.
   **S. Felts, N. Bateman, G. Lorenz, B. Thrash, N. Taillon, W. Plummer, J. McPherson, W. Plummer, C. Floyd, C. Rice**

42. Rate Response of Selected Insecticide Seed Treatments for Control of Rice Water Weevil.
   **W. A. Plummer, N. Bateman, G. Lorenz, B. Thrash, S. Felts, N. Taillon, J. McPherson, W. Plummer, C. Floyd, C. Rice**

43. Insecticide Seed Treatment Combinations for Control of Rice Water Weevil.

44. Field Sampling of Kernel Smut in Rice and its Effect on Yield and Quality.
   **L. Espino**

45. Fungicides to Control Rice Diseases in California.
   **L. Espino**

   **I. Grettenberger, L. Espino, K. Goding**

47. Impact of Planting Date on Infestations of Stemborers and Rice Water Weevils in Louisiana Rice.
   **J. Villegas, B. Wilson, M. Stout**
**X. Zhou, A. McClung, F. Dou**

49. A New Haplotype of Rice Blast Resistance Gene Ptr in Weedy Rice Confers Resistance to the Most Virulent Race of *M. oryzae*.  
**Y. Jia, H. Zhou, Y. Liu**

50. Seed Dressing to Manage Seed Rots and Seedling Diseases of Rice Caused by *Rhizoctonia* sp.  
**Y. Wamishe, T. Gebremariam, S. Belmar, T. Mulaw, C. Kelsey**

51. Impact of Rice Water Weevil and Stem Borer Infestations on Rice Yields.  
**B. Wilson, J. Villegas, K. Landry, M. Mulcahy, M. Stout**

52. Recent Advances in USDA’s Wildlife Repellents Research: Visual Cues for Avian Repellency and Rodent Repellents Progress.  
**S. Werner, S. Deliberto, B. Allen, C. Olson**

53. Efficacy of Foliar Applied Chlorantraniliprole for Control of Rice Stem Borers in Louisiana.  
**K. Landry, J. Villegas, B. Wilson**


**M. J. Stout**

56. Field Efficacy of Trichoderma (TM17) Against Sheath Blight of Rice.  
**T. Mulaw, Y. Wamishe, T. Gebremariam, S. Belmar, C. Kelsey**

**Postharvest Quality, Utilization, and Nutrition**

57. *Effect of Plant Density on Grain Quality Parameters of Short and Medium Grain Rice Cultivars.*  
**R. Wood, B. Dunn, D. Waters, C. Blanchard, P. Oli, J. Mawson**

58. Prediction of Grain Appearance Traits as Assessed by the USA Rice Industry Using High Throughput Imaging Systems.  
**A. McClung, M. Chen, F. Jodari, A. Famoso, C. Addison, S. Linscombe, B. Ottis, K. Moldenhauer, T. Walker, L. Wilson, K. McKenzie**

**Rice Culture**

**A. Coker, D. Harrell, M. Kongchum**
60. *Expansion of Invasive Apple Snails (Pomacea maculata) into Rice Production Regions in Southwest Louisiana.*
   **J. Lucero, B. Wilson**

   **A. Mohammed, C. Harper, R. Tabien, L. Tarpley**

62. Optimal Timing Window for Midseason Nitrogen Fertilizer Application to Two Rice Cultivars.

63. Effects of Late Season Nitrogen Application on Yield in Hybrid Rice.
   **C. Scott, D. Bolton, T. Roberts, J. Hardke, K. Hoegenauer**

64. Influence of Planting Date on Seeding Rate Decisions for Diamond Rice Variety.
   **E. Castaneda-Gonzalez, J. Hardke, R. Norman, D. Frizzell, T. Frizzell, K. Hale, T. Clayton**

65. Comparative Analysis of Urease versus Nitrification Inhibitors in Mississippi Rice (Oryza sativa) Production.
   **J. Mansour, B. Golden, J. Bond, N. Slaton, J. McCoy, B. Pieralisi, L. Bell**

66. Results of the 2019 Arkansas Rice Grower Research and Demonstration Experiment Program.

67. Influence of Nitrapyrin on Total Nitrogen Uptake and Yield in a Direct-seeded, Delayed Flood Rice System.

   **M. Kongchum, D. Harrell, A. Coker**

69. A Five Year Summary of the University of Arkansas Rice Research Verification Program.
   **R. Mazzanti, R. Baker, J. Hardke, K. Watkins**

70. Poly-4 as a Potassium Fertilizer Source in Rice.
   **S. Williamson, T. Roberts, J. Hardke, K. Hoegenauer J. Shafer**


   **T. Frizzell, J. Hardke, D. Frizzell, K. Hale, T. Clayton, W. Plummer, E. Castaneda-Gonzalez**
73. Optimization of Nitrogen Rate and Planting Density for Improving the Grain Yield of Different Rice Genotypes in Northeast China. 

   B. Pieralisi, B. Golden, J. McCoy, J. Mansour, L. Bell, T. Richmond, W. Eubank

Weed Control and Growth Regulation

75. *Cyperus difformis ALS Cross-Resistance Levels and Target-Site Characterization. 
   A. Ceseski, S. Ohadi, K. Al-Khatib

76. *Do Barnyardgrass Accessions Differ in Sensitivity to Loyant? 
   G. Priess, J. Norsworthy, C. Brabham, L. Piveta

77. *Effect of Rice Growth Stage at Application on Varietal Tolerance to Benzobicyclon. 

78. *Can Loyant Followed by Rogue be Safely Used on Hybrid and Medium Grain Rice? 
   J. Beesinger, J. Norsworthy, C. Sandoski, J. Patterson, Z. Lancaster, O. France

79. *Do Group 15 Herbicides Have a Fit in Louisiana Rice Production? 
   C. Webster, E. Webster, B. McKnight, S. Rustom Jr., D. Walker, W. Greer

80. *Does Soil Moisture at Application Influence Weed Control with Loyant? 
   M. Zaccaro, J. Norsworthy, J. Beesinger

81. *Efficacy of Benzobicyclon on Weedy Rice at Different Growth Stages. 
   M. Castner, J. Norsworthy, C. Brabham, C. Sandoski, J. Patterson, M. Zaccaro

82. *Carryover of Preface and Postscript to Non-Imidazolinone-Resistant Rice on a High pH Soil. 
   O. France, J. Norsworthy, Z. Lancaster, J. Patterson, J. Beesinger

   R. Farr, J. Norsworthy, L. Piveta

84. *Does Planting Date Affect Sensitivity of Rice Cultivars to Loyant? 

   A. Becerra-Alvarez, A. Ceseski, K. Al-Khatib
86. Herbicide Activity on Common Louisiana Aquatic Weeds.  
   **B. McKnight**, E. Webster, S. Rustom, C. Webster, B. Greer, D. Walker

87. Salvage Options for Indian Jointvetch (Aeschynomene indica) and Hemp Sesbania (Sesbania herbacea) using ALS Herbicides and Benzobicyclon in Drill Seeded Rice.  
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90. Inbred and Hybrid Rice Cultivar Response to Florpyrauxifen-benzyl.  
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**2:20 p.m.**

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Rice Culture Salon A,B,C,D: Panel Business Meeting

Weed Control Night Reef I, II: Notable Insights from Arkansas Rice Weed Control and...

Breeding Sand Castle II: Pyramiding of Seed Dormancy and Longevity Genes...

Plant Protection Sand Castle I: In Vitro and Field Evaluation of Fungicides for Control of...

Weed Control Night Reef I, II: Weed Control in Louisiana Rice

Breeding Sand Castle II: Progress in Development of Salt Tolerant Rice Varieties

Plant Protection Sand Castle I: Zeltera® 3.2 FS: A New Fungicide Seed Treatment for...

Weed Control Night Reef I, II: Remote Sensing of Weedy Rice in California Rice...

Breeding Sand Castle II: Panel Business Meeting

Plant Protection Sand Castle I: Survey of Fungal Pathogens Associated with Rice Seedling...

Weed Control Night Reef I, II: Panel Business Meeting

Plant Protection Sand Castle I: Panel Business Meeting