Coordinated Agricultural Project RiceCAP

• **Objective 1:** Identify and use molecular markers for milling quality and sheath blight

• **Goals of the PI:**
  • Evaluate phenotype and genotype of mapping populations 300 progeny MY1 in rep. trial
  • Help genotype 260 progeny for selection to create BC population SB4
  • Develop improved protocol for collecting phenotypic data of milling sub-components

RiceCAP

• Experimental approach
  • Evaluate 300 RILs in the field Cypress/RT0034 for milling quality
  • Help genotype the 260 lines using 150 polymorphic markers to identify the 20 best TILs for development of the backcross SB4 pop.
  • Train new hires in field evaluation, genotyping and marker assisted selection
Project Contribution and Integration

• The U of A Division of Agriculture rice team will produce extensive phenotypic characterization of the MY1 population grown in the AR environment, will assist in the genotyping effort of the 260 TILs and will participate in the training of the AR staff in molecular breeding techniques.

First Year Benchmarks

• Jan – Hire Postdoc - coordinate experimental design & data collection (MY1 population) & help with genotyping the TILs
• Feb – Participate CAP field planning meeting
• April – Plant 300 F2 derived lines in F12 & Hire Technicians
• June – Participate in MAS workshop with staff
• August – Begin data collection
Personnel Involved

- 1 Postdoctorial associate
- 2 part time technicians
- U of A Division of Agriculture personnel

U of Arkansas Division of Agriculture Rice Breeding Team

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James Gibbons
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Rick Cartwright
Charles Wilson
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