



Mississippi Corn Promotion Board 2015 Progress Report

Project Title: Irrigation Science Extension and Research (RISER) Program

PI: Jason Krutz, Larry Falconer, Lyle Pringle, Darrin Dodds, Trent Irby and Erick Larson

Department: Delta Research and Extension Center

Project Summary (Issue/Response)

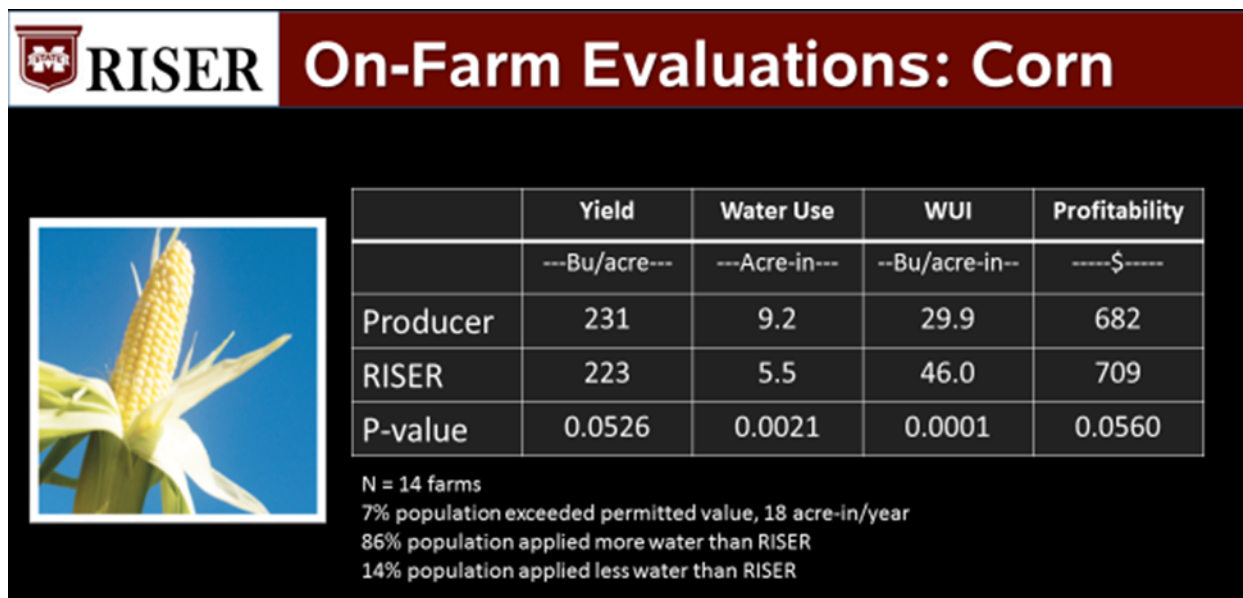
The RISER Program validates the ability of irrigation water management (IWM) tools to reduce water use while maintaining or improving corn yield and profitability through on-farm demonstration; and 2) provides first-hand learning opportunities for existing and new irrigation management tools. Learning opportunities are provided by 1) utilizing yearly in-service training to educate county extension agents, NRCS personal, private consultants and private sector representatives on irrigation BMPs installed at RISER locations, i.e., PHAUCET, soil water budgets, soil scheduling tools, meter utility, proper irrigation set design, etc.; 2) conducting on-site field-days at multiple RISER locations within the growing season; and 3) providing one-on-one, on-farm consultations for producers interested in adopting the latest RISER validated technologies. RISER locations are implemented with flow meters to determine cumulative water use. Yield and yield components are determined for both RISER and Producer controlled fields. Water and yield data are measured to document BMP effectiveness at the field scale. Collecting field scale data at multiple locations across years allows MSU personal to more effectively identify key physiochemical parameter(s) required for individual BMP success.



Project Results/Outcomes

Funding by the MCPB is instrumental in supporting Mississippi State Universities RISER Program. Irrigation water management tools including Pipe Planner, surge irrigation, in-season tillage, PAM and soil moisture sensor technologies were showcased at 19 locations in 2015. Data from RISER locations indicate potential to improve corn yield by 8 bu/acre, reduce water use by 40%, and improve profitability by \$30/acre. Additionally, MCPB funding provided opportunities for MSU extension personal to transfer RISER results to private and public sector stakeholders. Eleven popular press articles were written and distributed by various entities including Growing Mississippi, Delta Farm Press, Delta Business Journal, Mississippi State University Ag. Communications, Peanut Farmer and Manship Digital News. Nineteen blog articles were posted onto the Mississippi Crop Situation Blog and received over 1,000 hits during the year. Irrigation water management strategies were discussed at six field days (413 stakeholder contacts), forty-two grower meetings (1,558 stakeholder contacts) and twenty-three technical meetings (1,337 stakeholder contacts).

Project Results



Project Impacts/Benefits

The RISER program demonstrates potential for irrigation water management tools to improve on-farm profitability up to \$30/acre while reducing water use by 40%. Additionally, the RISER program serves as a catalyst for the adoption of IWM that will make Mississippi corn producers more profitable while reducing demand on the Mississippi Alluvial aquifer by 40%.

Project Deliverables

11 Popular Press including MidAmerica Farmer Grower, MAFES Discovers, The Cleveland Current, MS Business Journal and Growing Mississippi

1 Online Videos for Farmweek

19 Blog Articles on Mississippi Crops

6 Field Days

23 Growers Meetings

28 Technical Presentations