



# HELPING RICE PRODUCERS CONTROL WEEDS

## Challenges

- Rice has historically been the fourth-highest-revenue row crop in the state, trailing only corn, soybeans, and cotton.
- Competition from weeds is a primary source of yield loss in Mississippi rice.
- Primary weeds of rice in Mississippi include barnyardgrass, Palmer amaranth, morningglory species, and Italian ryegrass.
- Sustainability of rice farmers depends on the profitability of the farming enterprise.

## EXTENSION RESPONSE

Extension specialists and agents use applied research and a variety of outreach methods to inform rice producers of efficient and cost-effective methods to reduce losses from weed infestation.

- Extension faculty and professional staff develop and deliver targeted applied research and educational programs, as well as technical assistance activities, to assist rice producers.
- These programs and activities address the issues of weed management strategies, varietal tolerance to herbicides, and integration of weed control with other cultural practices such as fertilizer management.
- Scientific, research-based knowledge from more than **2,000** replicated small plots was disseminated through educational programming activities, various publications, and individual producer encounters in FY2023.
- Partnerships with industry and other entities have resulted in grants and contracts of approximately **\$150,000**.
- Most of this money was provided either directly or indirectly by rice producers, demonstrating the importance of Extension educational programming to the state's producers.

## ECONOMIC IMPACTS

- Extension educational programming focused on weed control in rice production has determined that best management practices could result in an expenditure of \$140 per acre, but producers could accrue an additional **\$854 per acre** by implementing these practices.
- Rice producers harvested 120,000 acres in 2023. Given a conservative 75% adoption rate by rice producers of the recommendations made by the MSU Extension Service, net revenues from implementing best practices could increase by an estimated **\$64.3 million** for 2023 alone.
- This increase in revenue could generate these estimated economic impacts:
  - » **928** additional jobs in Mississippi earning **\$35.5 million**
  - » an additional **\$45.7 million** in value-added in the state
  - » an additional **\$138.5 million** in output for the state



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