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Rice Research Verification Program

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University of Arkansas
Cooperative Extension Service
Agriculture Experiment Station
U.S. Department of Agriculture
And County Governments Cooperating

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RICE RESEARCH VERIFICATION PROGRAM, 2025

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INTRODUCTION

The 2025 growing season was the forty-second year for the Rice Research Verification Program (RRVP). The RRVP is an interdisciplinary effort between growers, county extension agents, extension specialists, and researchers. RRVP is an on-farm demonstration of all the research-based recommendations developed by the University of Arkansas System Division of Agriculture for the purpose of increasing the profitability of rice production in Arkansas. The specific objectives of the program are:

1. To demonstrate and verify research-based recommendations for profitable rice production throughout the rice-producing areas of Arkansas.

2. To develop a database for economic analysis of all aspects of rice production.

3. To demonstrate the benefits of available technology and inputs for the economic production of consistently high rice yields.

4. To identify specific problems and opportunities in Arkansas rice for further investigation.

5. To promote timely implementation of management practices among rice growers.

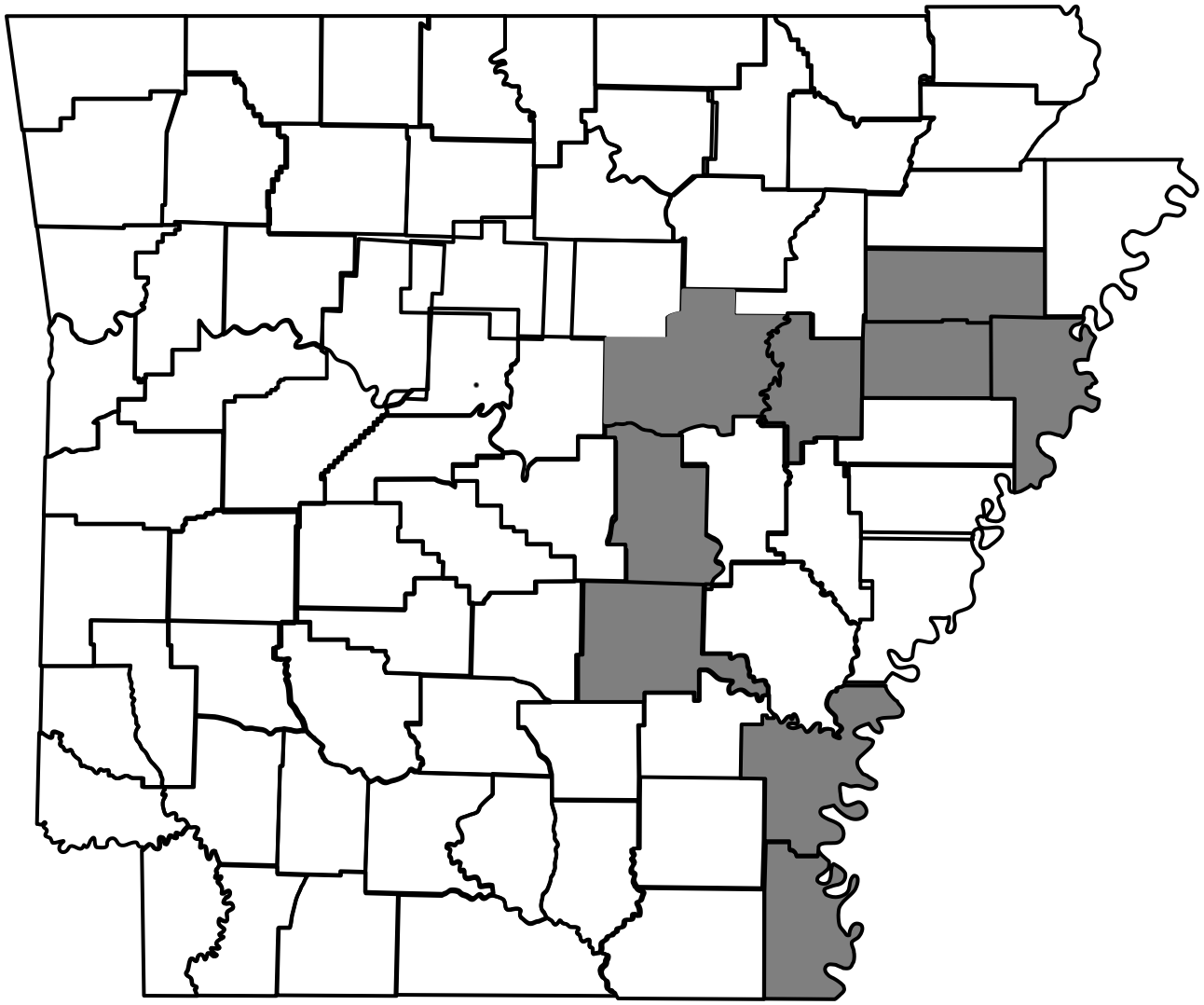
6. To provide training and assistance to county agents and growers with limited expertise in rice production.

The RRVP fields and cooperators are selected prior to planting. Cooperators agreed to pay production expenses, provide crop expense data for economic analysis, and implement the recommended production practices in a timely manner from seedbed preparation to harvest. Nine fields were enrolled in the RRVP in 2025. The fields were located on commercial farms ranging in size from 28 to 96 acres. The average field size was 69 acres.

Counties participating in the program during 2025 included Chicot, Crittenden, Desha, Jefferson, Lonoke, Prairie, Poinsett, White and Woodruff (Figure 1).

The nine rice fields totaled 621 acres enrolled in the program. Five different cultivars were seeded: RiceTec RT 7521 FP [3 fields]; RiceTec RT 7421 Silver FP [1 field]; CLL18 [1 field]; RiceTec RT 7302 [2 fields]; and Dyna-Gro DG263L [2 fields]. University of Arkansas System Division of Agriculture Cooperative Extension Service (UADA CES) recommendations were used to manage the RRVP fields. Agronomic and pest management decisions were based on field history, soil test results, rice cultivar, observations, and data collected from individual fields during the growing season. An integrated pest management philosophy was utilized based on UADA recommendations. Data collected included components such as stand density, weed populations, disease infestation levels, insect populations, rainfall, irrigation amounts, and dates for specific growth stages, grain yield, milling yield, and grain quality.

Figure 1. County Locations (shaded) of 2025 Rice Research Verification Program Fields.



FIELD REVIEWS

Verification Coordinator – Ralph Mazzanti

Chicot County

The Chicot County field was located west of Lake Village on a Perry clay soil. The field was zero grade and the previous crop was soybean. The field was disced and hipped in the fall and was stale seedbed in the spring. The field consisted of 96 acres. The chosen cultivar was RT 7421 FP (Silver) treated with the company's standard seed treatment. The field was drill-seeded at 23 lbs/acre on April 18. Emergence was observed on April 28 with a stand count of 5.1 plants/ft^2. Command, League, and Glyphosate herbicides were applied for pre-emergence and burn-down weed control on April 18. Loyant and Prowl herbicides were applied by drone for post-emergence and residual weed control on May 30. N-STaR (Nitrogen Soil Test for Rice) samples were taken on the field. Nitrogen (N) in the form of urea plus an approved NBPT was applied at 330 lbs/acre on May 23. No potash was recommended, but was applied by grower at 100 lbs/acre. The late-boot nitrogen was applied at 65 lbs/acre as urea on July 3. Using Trimble GreenSeeker technology, the N response levels and crop response were adequate. Rice stink bugs reached treatment levels and Tenchu insecticide was applied on July 31. The field was harvested on September 4 yielding a disappointing 132 bu/ac and a milling yield of 40/62. The disappointing yield was believed to be from a lot of rice blanking, most likely from extended high nighttime temperatures during flowering. The average harvest moisture was 13%. Total rainfall was 10.38 inches. No flowmeter was used on this field; however, RRVP historical irrigation average is 30 acre-inches.

Crittenden County

The furrow irrigated (FIR) Crittenden County field was located just south of Heth on a silty clay loam soil. Conventional tillage practices were used in the spring by running a field cultivator and diamond harrow. The field consisted of 71 acres and the previous crop grown was soybean. DAP fertilizer 18-46-0 (N-P_2O_5) lbs/acre was applied at 100 lbs/acre in the spring. The cultivar chosen was DG263L, treated with the company's standard seed treatment. Command, Facet L, Gambit, and Glyphosate were applied as residual and burn-down herbicides on April 19. The field was drill-seeded at 45 lbs/ac planted April 19. Emergence was observed on April 28 with a stand count of 15.2 plants/ft^2. Prowl herbicide was applied as a pre-emergence application on May 9. N-STaR (Nitrogen Soil Test for Rice) was utilized on the field. Nitrogen in the form of urea plus an approved NBPT was applied at 100 lbs/acre on May 26 followed by 100 lbs/acre on June 2. Urea at 100 lbs/acre was applied June 9 followed by 100 lbs/acre on June 16. Using Trimble GreenSeeker, the N response levels remained adequate throughout the season. Due to the history of kernel smut, Quilt Xcel fungicide was applied July 1. The field was harvested on September 9 yielding a disappointing 158 bu/ac with a milling yield of 47/62. Although the field was clean and uniform high nighttime temperatures more likely played a role in the yield. The average harvest

moisture was 16%. Total irrigation was 20.82 acre-inches and rainfall totaled 14.32 inches.

Desha County

The Desha County furrow-irrigated rice (FIR) field was located just north of McGehee on a silt loam soil. The field consisted of 73 acres and the previous crop was soybean. The cultivar chosen was RT 7521 FP treated with the company's standard seed treatment. Fall tillage was implemented with a cultivator and hipper. No-tillage practices were necessary in the spring. Spring burndown was utilized with Gramoxone, Valor, and Latigo herbicides. The field was drill-seeded at 22 lbs/acre on April 27. Gramoxone, Command, Sharpen, and Facet L herbicides were applied April 27. Emergence was observed on May 10 with a stand count of 8.5 plants/ ft^2. Not recommended was DAP fertilizer 18-46-0 (N-P_2O_5-K_2O) lbs/acre applied at the 3-4-leaf stage on May 6. While not recommended, grower applied 100 lbs/acre urea plus 50 lbs/acre ammonium sulfate at 3-4 leaf stage. Prowl herbicide was applied on May 6. N-STaR (Nitrogen Soil Test for Rice) was taken in early spring on the field. Nitrogen in the form of urea plus an approved NBPT was applied at 100 lbs/acre on May 23, followed by 100 lbs/acre on June 6. The late-boot N application was made on June 25 at 65 lbs/acre. Using Trimble GreenSeeker, the N response levels remained adequate throughout the season. Intermittent flushing was utilized for irrigation. The field was harvested August 19 yielding 204 bu/acre and a milling yield of 35/68. The average harvest moisture was 13%. No flowmeter was used on this field; however, RRVP historical irrigation average is 30 acre-inches. Total rainfall was 15.69 inches.

Jefferson County

The 88-acre Jefferson County field was located just north of Reydell on Dundee silt loam soil. No fall tillage was implemented and no spring tillage was necessary. According to the soil analysis no pre-plant fertilizer was necessary. The field was drill-seeded March 27 with the cultivar DG263L at 50 lbs/acre. The seed was treated with company's standard seed treatment. Rice emergence was observed on May 17 at 12.8 plants/ft^2. Command, League, and Glyphosate were used as pre-emergence and burndown herbicides on May 28. Facet L herbicide was applied on 20 acres on May 14. Using the N-STaR recommendation, N fertilizer in the form of urea plus NBPT was applied at 220 lbs/acre on May 16. Mid-season N was applied June 13 at 100 lbs/acre. GreenSeeker technology was utilized during midseason growth stages to monitor the crop's N level. Multiple-inlet rice irrigation (MIRI) was utilized to achieve a more efficient permanent flood. The field was harvested on August 21. The yield was 180 bu/acre. The milling yield was 58/66 and average harvest moisture was 13%. Due to a flowmeter malfunction, no irrigation data is available; however, RRVP historical irrigation average is 30 acre-inches. Total rainfall was 18.43 inches.

Lonoke County

The 79-acre contour field was located north of Lonoke on a Callaway silt loam soil. The variety RT 7521 FP treated with the company's standard seed treatment was drill-seeded at 20.5 lbs/acre on April 12. Field cultivation was used for fall and spring tillage.

Pre-plant fertilizer 0-30-60 (N-P_2O_5-K_2O) lbs/acre was applied in the spring. Preface, Command, and Glyphosate herbicides applied at planting for burndown and pre-emergence weed control on April 12. Stand emergence was observed on April 22 with 7 plants/ft^2. Facet L and Preface were applied as post-emergence herbicides on May 7. Nitrogen in the form of urea with an approved NBPT was applied May 28 at 265 lbs/acre, according to the N-STaR recommendation. GreenSeeker technology was utilized during growth stages to monitor the crop's nitrogen level. The late-boot urea application was applied on July 10 at 65 lbs/acre. Propiconazole fungicide was applied for kernel smut prevention on July 7. The field was harvested on September 2 yielding 217 bu/acre at an average harvest moisture of 16%. The milling yield was 59/68. The rainfall for the growing season totaled 21.1 inches. Irrigation amounts totaled 30 acre-inches.

Prairie County

The 40-acre contour field was located just south of DeValls Bluff on Ouachita silt loam soil. Fall tillage included discing and in spring discing and land planning. The previous crop was soybean. According to the soil analysis a fertilizer blend 0-50-120-10 (N-P_2O_5-K_2O-Zn) lbs/acre was applied in the spring. The cultivar RTv7303 treated with the company's standard seed treatment was drill-seeded at 41 lbs/acre on April 23. Glyphosate herbicide was used as a burndown on April 23. Command and Facet L were applied as pre-emergence herbicides on April 28. Stand emergence was observed on May 1 with 13.8 plants/ft^2. Duet and Facet L were applied May 27. Nitrogen fertilizer in the form of urea plus NBPT was applied at 260 lbs/acre on May 27. The mid-season N application 100 lbs/acre was applied June 26. GreenSeeker technology was utilized during growth stages to monitor the crop's nitrogen level. The field was harvested on September 9 yielding 160 bu/acre and a milling yield of 49/63. Total irrigation was 14.7 acre-in/acre and total rainfall was 11.8 inches.

Poinsett County

The 96-acre furrow irrigated (FIR) field was located just west Fisher on Alligator clay soil. Hipping was used as the spring tillage practice. The variety CLL18, treated with CruiserMaxx Rice, zinc and Fortenza was drill-seeded on April 17 at 60 lbs/acre. Command, Glyphosate, and Sharpen were applied as pre-emergence and burndown herbicides on April 1. Emergence was observed on May 1 with 15 plants/ft^2. According to the soil analysis no pre-plant fertilizer was recommended. Command, Glyphosate, and Sharpen were used as pre-emergence and burndown herbicides on April 1. Newpath herbicide was applied on May 19. Prowl and Newpath herbicides were applied on June 2. RiceBeaux herbicide was applied for weed escapes on June 10. Using the N-STaR recommendation, nitrogen in the form of urea plus NBPT was applied at 250 lbs/acre on June 3. Mid-season N was applied at 100 lbs/acre on July 1. The field was harvested September 18 yielding 130 bu/acre with a milling yield of 48/65. The low yield was attributed to resistant grass issues. The average harvest moisture was 14%. Total irrigation use was 30.6 acre-in/acre and rainfall totaled 19.93 inches.

White County

The 28-acre contour field was located southeast of Higginson on a Calhoun silt loam soil. Spring tillage practices utilized were a harrow and DMI. Pre-plant fertilizer was applied at a rate of 0-30-60-10 (N-P_2O_5-K_2O-Zn) lbs/acre according to the soil test. The cultivar RT 7521 FP treated with the company's standard seed treatment was drill-seeded at 22 lbs/acre on April 16. Command and Sharpen were applied as pre-emergence herbicides on April 16. Stand emergence was observed April 24 at 9 plants/ft^2. Preface herbicide was applied on May 29. Nitrogen fertilizer in the form of urea plus NBPT was applied May 30 at 300 lbs/acre according to the N-STaR recommendation. Multiple-inlet rice irrigation (MIRI) was utilized to achieve a more efficient permanent flood. GreenSeeker technology was utilized during the season to monitor the crop's N level. The late-boot N fertilizer application was made on July 7 at 65 lbs/acre. The field was harvested on September 7 yielding 194 bu/acre and a milling yield of 48/72. The harvest moisture averaged 18%. Total irrigation usage was 15.42 acre-inches and total rainfall was 19.32 inches.

Woodruff County

The contour 52-acre field was located North of Augusta. The soil type was a McCrory fine sand soil. The field was disced in the fall while spring practices utilized were discing and land planing. Based on soil analysis a pre-plant fertilizer of 0-50-90 (N-P_2O_5-K_2O) lbs/acre was applied March 24 based on soil test analysis. On May 14, RT 7421 FP treated with the company's standard seed treatment was drill-seeded at 18 lbs/acre. Command, Glyphosate, and Sharpen were applied at planting as pre-emergence and burndown herbicides. Stand emergence was observed on May 20 with 8.5 plants/ft^2. Preface, Facet L, and RiceBeaux were applied on June 17. Nitrogen fertilizer in the form of urea plus NBPT was applied at 300 lbs/acre on June 24 in accordance with the N-STaR recommendation. The late-boot urea application of 65 lbs/acre was made on June 25. Tenchu insecticide was applied for stink bug control on July 20. The field was harvested on September 30 yielding 202 bu/acre with a milling yield of 54/70. The harvest moisture was 14%. No flowmeter was used on this field; however, RRVP historical irrigation average is 30 acre-inches. Total rainfall was 17.53 inches.

Table 1. Agronomic information for fields enrolled in the 2025 Rice Research Verification Program.

Field Location by County	Cultivar	Field size (acres)	Previous crop	Seeding rate (lbs/acre)	Stand density (plants/ft^2)	Planting date	Emergence date	Harvest date	Yield (bu/A)	Milling yield[a]	Harvest Moisture
Chicot	RT 7421 FP Silver	96	Soybean	23	5.7	18-April	28-April	4-Sept	132	40/62	13%
Crittenden	DG 263L	71	Soybean	45	15.2	19-April	28-April	9-Sept	158	47/62	16%
Desha	RT 7521 FP	73	Soybean	22	8.5	27-April	10-May	19-Aug	204	35/68	13%
Jefferson	DG 263L	88	Soybean	50	12.8	27-March	17-April	21-Aug	180	58/66	13%
Lonoke	RT 7521 FP	79	Soybean	20.5	7	12-April	22-April	2-Sept	217	59/68	16%
Prairie	RTv7303	40	Soybean	41	15	17-April	1-May	18-Sept	160	49/62	14%
Poinsett	CLL18	96	Rice x7	60	23	24-May	30-May	11-Oct	130	56/62	14%
White	RT 7521 FP	28	Soybean	20	9	16-April	24-April	12-Sept	194	48/72	18%
Woodruff	RT 7421 FP	50	Soybean	18	8.5	14-May	20-May	30-Sept	202	54/70	14%
Average	------	**69**	------	**33**[b]	**12**[c]	**22-Apr**	**3-May**	**10-Sep**	**175**	**50/66**	**14.5%**

[a] Milling yield: % Head rice (whole white grains) % Total white rice (whole grains + broken grains).
[b] Seeding rates averaged 49 lbs/acre for conventional cultivars and 21 lbs/acre for hybrid cultivars.
[c] Stand density averaged 17 plants/ft^2 for conventional cultivars and 8 plants/ft^2 for hybrid cultivars.

Table 2. Soil test results, fertilization program, and soil classification for fields enrolled in the 2025 Rice Research Verification Program.

Field Location by County	Soil Test				Applied Fertilizer (lbs/acre)			Soil Classification
	pH	lbs/acre			Mixed Fertilizer [a] N-P-K-Zn [b]	N-Star Urea (46%N) rates and timing [c, d]	Total N rate (lbs N/acre)	
		P	K	Zn				
Chicot	6.9	43	584	8.1	0-0-60-0	330-0-65	182	Portland Perry Clay
Crittenden	7.0	34	688	8.4	18-46-0-10	(100-100-100) -100[e]	184	Henry Silt Loam
Desha	7.1	66	592	7.1	28-46-0-0-12s	100 (100-100-100)-65[e]	196	Stuttgart Silt Loam
Jefferson	7.0	62	469	12.1	0-0-0-0	220-100-0	147	Dundee Silt Loam
Lonoke	5.3	58	172	5.6	0-30-60-0	265-0-65	152	Calloway Silt Loam
Prairie	7.5	38	112	5.0	0-50-120-10	260-100-0	166	Ouachita Silt Loam
Poinsett	7.4	36	409	5.3	0-0-0-0	250-100-0	161	Alligator Clay
White	6.4	33	308	4.8	0-60-0-10	300-0-65	168	Calhoun-Henry Silt Loam
Woodruff	5.6	15	129	2.7	0-50-90-10	300-0-65	168	McCrory Fine Sand

[a] Column represents regular pre-plant applications.
[b] N=nitrogen, P=phosphorus (P_2O_5), K=potassium (K_2O), Zn=zinc.
[c] Timing: preflood – midseason – boot. Each field was fertilized according to its N-STaR recommendation. The mark (*) denotes an adjusted N-STaR rate and timing for furrow irrigated rice.
[d] The N-STaR preflood N recommendation in all fields was treated with an approved NBPT product to minimize N loss due to ammonia volatilization.
[e] Row rice fields received additional seasonal N exceeding the N-STaR recommendation by 46 lbs. Numbers in parentheses represent early season urea applications for furrow-irrigated rice in place of the preflood application for flooded rice.

Table 3. Herbicide rates and timings for fields enrolled in the 2025 Rice Research Verification Program.

Field Location by County	Burndown/Pre-emergence Herbicide Applications (Trade name & product rate/acre)[x]	Post-emergence Herbicide Applications (Trade name & product rate/acre)[x]
Chicot	Command (24 oz) + League (6.4 oz) + Glyphosate (32 oz)	Loyant (10 oz) + Prowl (32 oz)
Crittenden	Command (20 oz) + Facet L (32 oz) + Gambit (1.5 oz) + Glyphosate (32 oz)	Prowl (32 oz)
Desha	Gramoxone (32 oz) + Valor (2 oz) + Latigo (12.8 oz) fb Gramoxone (32 oz) + Command (12.8 oz) + Sharpen (2 oz) + Facet L (32 oz)	Prowl (32 oz)
Jefferson	Command (20 oz) + League (6.4 oz) + Glyphosate (32 oz)	Facet L (32 oz) fb Permit Plus (0.75 oz)
Lonoke	Preface (5 oz) + Command (12.8 oz) + Glyphosate (32 oz)	Preface (5 oz) + Facet L (32 oz) + NIS (8 oz)
Prairie	Glyphosate (32 oz) fb Command (12.8 oz) + Facet L (11 oz)	Duet (4 qt) + Permit (0.25 oz)
Poinsett	Command (25.6 oz) + Glyphosate (32 oz) + Sharpen (2 oz) fb Prowl (32 oz) + Newpath (6 oz)	RiceBeaux (4 qts)
White	Command (12.8 oz) + Sharpen (2 oz)	Preface (5 oz)
Woodruff	Command (12.8 oz) + Glyphosate (32 oz) + Sharpen (2 oz)	Preface (6 oz) + Facet L (32 oz) + RiceBeaux (4 qt)

[x] 'FB' = 'followed by' and is used to separate herbicide application events; COC = Crop Oil Concentrate; NIS = Non-Ionic Surfactant; Triple Play = Organo-Silicone Surfactant

Table 4. Seed treatments used and foliar fungicide and insecticide applications made on fields enrolled in the 2025 Rice Research Verification Program.

Field Location by County	Seed treatments (trade name and product rate/cwt seed)	Foliar fungicide and insecticide applications (trade name and product rate/acre)			
	Fungicide and/or Insecticide Seed Treatment for Control of Diseases and Insects of Seedling Rice[z]	Fungicide Applications for Control of Sheath Blight/Kernel Smut/False Smut	Fungicide Applications for Control of Rice Blast	Insecticide Applications for Control of Rice Water Weevil	Insecticide Applications for Control of Rice Stink Bug/Chinch Bug/Armyworms
Chicot	RTST[z]	-------	------	----	Tenchu (7.5 oz)
Crittenden	RTST[z]	-------	------	------	Tenchu (7.5 oz)
Desha	RTST[z]	------	------	------	Kruger (8 oz)
Jefferson	CruiserMaxx Rice + Zinc	-------	------	------	------
Lonoke	RTST[z]	Propiconozole (8 oz)	------	------	------
Prairie	RTST[z]	------	------	------	------
Poinsett	CruiserMaxx Rice + Zinc + Fortenza	------	------	------	------
White	RTST[z]	------	------	------	------
Woodruff	RTST[z]	-----	------	------	Tenchu (7.5 oz)

[z] RTST = 'RiceTec Seed Treatment'

Table 5. Rainfall and irrigation information for fields enrolled in the 2025 Rice Research Verification Program.

Field Location by County	Rainfall (inches)	Irrigation[z] (acre-in/acre)	Rainfall + Irrigation (inches)
Chicot	10.38	30[z]	40.38
Crittenden	14.52	20.82	35.34
Desha	15.69	30[z]	45.69
Jefferson	18.43	30[z]	48.43
Lonoke	21.01	30[z]	51.01
Prairie	11.8	14.7	26.5
Poinsett	19.93	30.6	50.53
White	19.32	15.42	34.74
Woodruff	17.53	30[z]	47.53

[z] Not all fields were equipped with flow meters to monitor water use for irrigation. Therefore, the historical average irrigation amount in fields with flow meters was used for fields with no irrigation data. Irrigation amounts using this calculated average are followed by an asterisk (*).

ECONOMIC ANALYSIS

This section provides information on production costs and returns for the 2025 Rice Research Verification Program (RRVP). Records of field operations on each field provided the basis for estimating production costs. The field records were compiled by the RRVP coordinator, county Extension agents, and cooperators. Production data from the 9 fields were applied to determine costs and returns above operating costs, as well as total specified costs. Operating costs and total costs per bushel indicate the commodity price needed to meet each cost type.

Operating costs are those expenditures that would generally require annual cash outlays and would be included on an annual operating loan application. Actual quantities of all operating inputs as reported by the cooperators are used in this analysis. Input prices are determined by data from the 2025 Crop Enterprise Budgets published by the Cooperative Extension Service and information provided by the cooperating producers. Fuel and repair costs for machinery are calculated using a budget calculator based on parameters and standards established by the American Society of Agricultural and Biological Engineers. Machinery repair costs should be regarded as estimated values for full-service repairs, and actual cash outlays could differ as producers provide unpaid labor for equipment maintenance.

Fixed costs of machinery are determined by a capital recovery method which determines the amount of money that should be set aside each year to replace the value of equipment used in production. Machinery costs are estimated by applying engineering formulas to representative prices of new equipment. This measure differs from typical depreciation methods, as well as actual annual cash expenses for machinery.

Operating costs, fixed costs, costs per bushel (bu), and returns above operating and total specified costs are presented in Table 6. Costs in this report do not include land costs, management, or other expenses and fees not associated with production. Operating costs ranged from $668.80/acre for Jefferson County to $891.51/acre for Woodword County, while operating costs per bushel ranged from $3.48/bushel for Lonoke County to $6.27/bushel for Poinsett County. Total costs per acre (operating plus fixed) ranged from $870.04/acre for Jefferson County to $1,131.80/acre for Woodruff County, and total costs per bushel ranged from $4.36/bu for Lonoke County to $7.44/bu for Poinsett County. Returns above operating costs ranged from -$196.73/acre for Poinsett County to $332.93/acre for Lonoke County, and returns above total costs ranged from -$348.68/acre for Poinsett County to $141.14/acre for Lonoke County.

A summary of yield, rice price, revenues, and expenses by expense type for each RRVP field is presented in Table 7. The average rice yield for the 2025 RRVP was 175 bu/acre but ranged from 130 bu/acre for Poinsett County to 217 bu/acre for Lonoke County. Rice prices for this year were based on the September 30 Chicago Board of Trade settlement price for rough rice of $5.02/bu. A premium or discount was given to each field based on the milling yield observed for each field, a standard milling yield of 55/70 for long-grain rice, and 2025 long grain loan values for whole kernels ($11.03/cwt) and broken kernels ($7.81/cwt). Estimated long-grain prices adjusted for milling yield varied from $4.53/bu in Chicot County to $5.01/bu in Lonoke and Woodruff Counties (Table 7).

The average operating expense for the 9 RRVP fields was $771.27/acre (Table 7). Fertilizer and nutrients expenses accounted for the largest share of operating expenses on average (20.4%) followed by seed (16.3%), post-harvest expenses (15.1%), and chemicals (13.0%). Although seed's share of operating expenses was 16.3% across the 9 fields, it's average cost and share of operating expenses varied depending on whether a proprietary non-herbicide tolerant pure-line cultivar was used ($86.24/acre; 12.1% of operating expenses), a herbicide-tolerant non-hybrid cultivar was used

($109.20/acre; 13.4% of operating expenses), or a herbicide-tolerant hybrid was used ($153.00/acre; 19.2% of operating expenses).

The average return above operating expenses for the 9 fields was $73.64/acre and ranged from -$196.73/acre for Poinsett County to $332.93/acre for Lonoke County. The average return above total specified expenses for the 9 fields was -$109.95/acre and ranged from -$348.68/acre for Poinsett County to $141.14/acre for Lonoke County. Table 8 provides select variable input costs for each field and includes a further breakdown of chemical costs into herbicides, insecticides, and fungicides. Table 8 also lists the specific rice cultivars grown on each RRVP field.

Table 6. Operating Costs, Total Costs, and Returns for fields enrolled in the 2025 Rice Research Verification Program.

County	Operating Costs ($/acre)	Operating Costs ($/bushel)	Returns to Operating Costs ($/acre)	Fixed Costs ($/acre)	Total Costs ($/acre)	Returns to Total Costs ($/acre)	Total Costs ($/bushel)
Chicot	744.73	5.64	-147.33	197.07	941.80	-344.40	7.13
Crittenden	750.61	4.75	-19.52	128.01	878.62	-147.53	5.56
Desha	835.44	4.10	116.05	160.20	995.64	-44.15	4.88
Jefferson	668.80	3.72	218.09	201.24	870.04	16.85	4.83
Lonoke	754.66	3.48	332.93	191.78	946.44	141.14	4.36
Poinsett	815.22	6.27	-196.73	151.95	967.17	-348.68	7.44
Prairie	727.38	4.55	23.23	207.89	935.27	-184.66	5.85
White	753.09	3.88	215.58	173.90	926.98	41.68	4.78
Woodruff	891.51	4.41	120.46	240.29	1,131.80	-119.83	5.60
Average	**771.27**	**4.53**	**73.64**	**183.59**	**954.86**	**-109.95**	**5.60**

Table 7. Summary of Revenue and Expenses per Acre for fields enrolled in the 2025 Rice Research Verification Program.

Receipts	Chicot	Crittenden	Desha	Jefferson	Lonoke
Yield (bushels)	132	158	204	180	217
Price Received ($/bushel)	4.53	4.63	4.66	4.93	5.01
Total Crop Revenue	**597.40**	**731.09**	**951.49**	**886.89**	**1087.59**
Operating Expenses					
Seed	175.84	82.35	160.38	91.50	149.45
Fertilizers & Nutrients	121.11	182.20	172.69	89.83	119.27
Chemicals	85.51	150.02	97.19	95.10	51.15
Custom Applications	30.00	60.00	60.00	32.00	46.50
Diesel Fuel	22.12	13.25	17.06	16.57	19.24
Repairs & Maintenance	32.01	22.51	26.81	34.42	32.28
Irrigation Energy Costs	99.22	49.36	75.87	99.22	99.22
Labor, Field Activities	55.04	50.27	51.94	53.93	54.13
Other Inputs & Fees, Pre-harvest	36.30	35.81	38.15	36.81	39.45
Post-harvest Expenses	87.58	104.83	135.35	119.43	143.98
Total Operating Expenses	**744.73**	**750.61**	**835.44**	**668.80**	**754.66**
Returns to Operating Expenses	**-147.33**	**-19.52**	**116.05**	**218.09**	**332.93**
Capital Recovery & Fixed Costs	197.07	128.01	160.20	201.24	191.78
Total Specified Expenses [z]	**941.80**	**878.62**	**995.64**	**870.04**	**946.44**
Returns to Specified Expenses	**-344.40**	**-147.53**	**-44.15**	**16.85**	**141.14**
Operating Expenses/Yield Unit	5.64	4.75	4.10	3.72	3.48
Total Expenses/Yield Unit	7.13	5.56	4.88	4.83	4.36

[z] Does not include land costs, management, or other expenses and fees not associated with production.

Table 7. Summary of Revenue and Expenses per Acre for fields enrolled in the 2025 Rice Research Verification Program (Continued).

Receipts	Poinsett	Prairie	White	Woodruff	Average
Yield (bushels)	130	160	194	202	175
Price Received ($/bushel)	4.76	4.69	4.99	5.01	4.80
Total Crop Revenue	**618.49**	**750.61**	**968.66**	**1011.97**	**844.91**
Operating Expenses					
Seed	109.20	84.87	145.80	133.56	125.88
Fertilizers & Nutrients	164.26	185.03	220.63	161.86	157.43
Chemicals	194.29	89.22	25.65	114.06	100.24
Custom Applications	55.00	56.00	50.00	70.00	51.06
Diesel Fuel	15.27	25.11	21.78	30.99	20.16
Repairs & Maintenance	26.92	35.90	29.38	37.70	30.88
Irrigation Energy Costs	72.55	48.62	36.56	105.83	76.27
Labor, Field Activities	52.08	56.57	54.53	57.71	54.02
Other Inputs & Fees, Pre-harvest	39.39	39.90	40.04	45.77	39.07
Post-harvest Expenses	86.26	106.16	128.72	134.03	116.26
Total Operating Expenses	**815.22**	**727.38**	**753.09**	**891.51**	**771.27**
Returns to Operating Expenses	**-196.73**	**23.23**	**215.58**	**120.46**	**73.64**
Capital Recovery & Fixed Costs	151.95	207.89	173.90	240.29	183.59
Total Specified Expenses [z]	**967.17**	**935.27**	**926.98**	**1,131.80**	**954.86**
Returns to Specified Expenses	**-348.68**	**-184.66**	**41.68**	**-119.83**	**-109.95**
Operating Expenses/Yield Unit	6.27	4.55	3.88	4.41	4.53
Total Expenses/Yield Unit	7.44	5.85	4.78	5.60	5.60

[z] Does not include land costs, management, or other expenses and fees not associated with production.

Table 8. Selected Variable Input Costs per Acre for fields enrolled in the 2025 Rice Research Verification Program.

County	Rice Type	Seed	Fertilizers & Nutrients	Herbicides	Insecticides	Fungicides & Other Inputs	Diesel Fuel	Irrigation Energy Costs
Chicot	RT 7421 Silver FP	175.84	121.11	77.04	8.48	---	22.12	99.22
Cross	DG 263 L	82.35	182.20	115.04	---	34.98	13.25	49.36
Drew	RT 7531 FP	160.38	172.69	88.15	9.04	---	17.06	75.87
Jefferson	DG 263 L	91.50	89.83	95.10	---	---	16.57	99.22
Lonoke	RT 7521 FP	149.45	119.27	42.05	---	9.10	19.24	99.22
Mississippi	CLL18	109.20	164.26	159.32	---	34.98	15.27	72.55
Poinsett	RTv7303	84.87	185.03	89.22	---	---	25.11	48.62
White	RT 7521 FP	145.80	220.63	25.65	---	---	21.78	36.56
Woodruff	RT 7421 FP	133.56	161.86	105.59	8.48	---	30.99	105.83
Average	**---**	**125.88**	**157.43**	**88.57**	**8.66**	**26.35**	**20.16**	**76.27**