DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

2026
University of Arkansas System
Division of Agriculture
Wheat Research Verification Program

The Wheat Research Verification Program is funded by Arkansas wheat producers through check-off funds administered by the Arkansas Wheat Promotion Board.

University of Arkansas
Cooperative Extension Service
Agriculture Experiment Station
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And County Governments Cooperating

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Introduction

The Wheat Research Verification Program (WRVP) represents an interdisciplinary effort of farmers, county Extension agents, Extension specialists, and researchers committed to improving the profitability of wheat production in Arkansas. The WRVP program began in 1986 under the direction of the University of Arkansas Cooperative Extension Service. The Arkansas Wheat Promotion Board has allocated the funding necessary for the WRVP program each year since its inception.

The WRVP program is designed as an on-farm demonstration of all the research-based recommendations required to grow wheat profitably in Arkansas. The WRVP program is part of the University of Arkansas Extension Service's goal of helping wheat producers make economic, agronomic, and environmentally sound decisions on their farms. The specific objectives of the program are:

1. To verify research-based recommendations for profitable wheat production in all wheat-producing areas of Arkansas.
2. To develop a database for economic analysis of all aspects of wheat production to demonstrate that consistently high yields of wheat can be produced economically.
3. To identify specific problems and opportunities in Arkansas wheat production for further investigation.
4. To promote timely cultural and management practices among all wheat farmers.
5. To provide training and assistance to county agents with limited expertise in wheat production.

Four fields were enrolled in the WRVP for the 2025-2026 growing season. One field did not get planted due to wet weather during the intended planting window. Cooperators from the counties selected varieties from a short list provided by the agent and research verification coordinator. These varieties were selected based on multi-year performance and characteristics determined by the University of Arkansas wheat variety testing program.

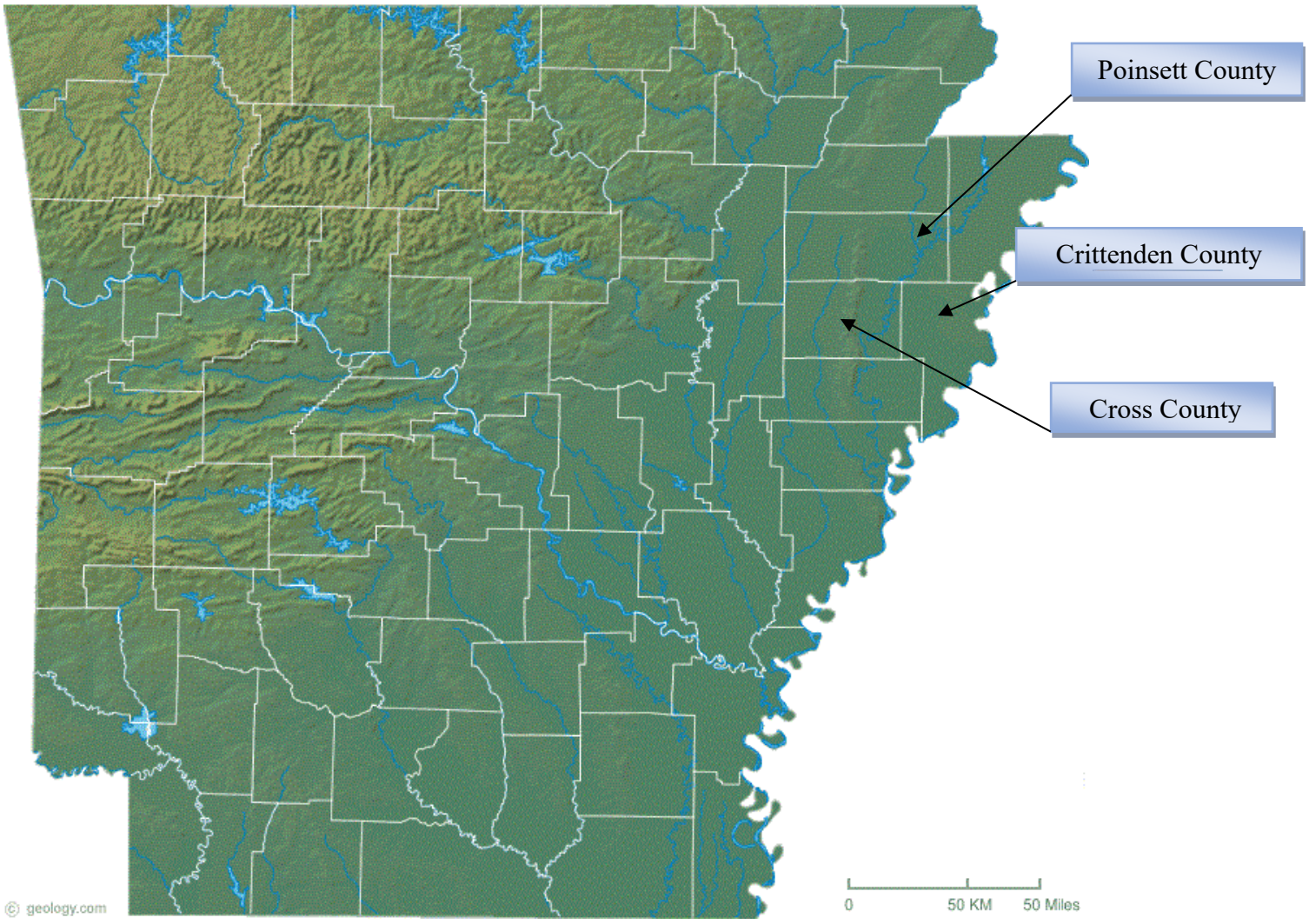
Soil type for fields enrolled in the program was silt loam, with two fields having a previous crop of soybean and one corn. Fields were planted in early to mid-November with a seeding rate of 100-120 lbs/acre. The Crittenden County field was broadcasted. The Cross County and Poinsett County fields were drilled on 7.5-inch row spacing. All of the fields required treatment weed control. Crittenden and Cross required treatment for disease. No field reached treatment threshold for insects. Yields from verification fields ranged from 50.0 bushels/acre in Crittenden County to 77.0 bushels/acre in Cross County.

The 2025-2026 Arkansas wheat production season had a slow start with a dry October, followed by rain in late October, which delayed planting until early-Mid November. Mild temperatures and dry conditions throughout November-December allowed for good tillering prior to winter. Continued warm and dry temperatures in January and February allowed for timely initial topdress nitrogen applications. Freezing temperatures on March 17 caused some freeze damage on more advanced wheat fields, especially in the southern part of the state. Fortunately, none of the verification fields showed any freeze damage. The remainder of March and April were warm and dry. The overall November through April was one of the driest statewide on record.

Crittenden and Cross County fields were treated with a foliar fungicide for leaf rust control. Insect pressure remained below threshold, and no treatments were recommended. One to two herbicide applications were needed in all Wheat Research Verification fields for winter weed control. Wheat research verification fields were harvested from early to mid-June. Arkansas producers planted an estimated 90,000 acres of wheat in the fall of 2025 and harvested 40,000 acres. Statewide average yield was estimated at 56 bu/acre. The verification program's average yield for the 2025-2026 season was 65.1 bushels/acre.

The Wheat Research Verification Program continues to demonstrate that Extension's research-based recommendations can produce profitable, high-yielding wheat across a wide range of conditions and soil types. Over the last 10-year period, the WRVP has averaged approximately 11 bushels above the average state yield. The program is funded by wheat check-off dollars and is administered through the Arkansas Wheat Promotion Board.

Figure 1. Locations of 2025-2026 Wheat Research Verification Program Fields



Field Reviews

2025-2026 Fields – Chris Elkins

Crittenden County

The 254-acre field with Dubbs silt loam soil was located west of Marion and followed soybeans. A pre-plant fertilizer application of 0-46-50 was applied, following minimum tillage. The field was broadcast-planted and incorporated on November 17, 2025, with Progeny Buster untreated seed at 120 pounds/acre. Wheat emerged on November 24, 2025, to a stand of 35.9 plants/ ft². An initial early spring fertilizer application of 130 pounds/acre urea plus 70 pounds/acre ammonium sulfate was ground-applied on March 4, 2026. A herbicide application of 15 ounces/acre Axial Bold plus .75 ounces/acre Harmony Extra on March 4, 2026, was made for broadleaf and ryegrass suppression. Heavy ryegrass pressure even after herbicide application caused a negative impact on yield. The final spring nitrogen application was applied aerially on April 10, 2026, of 100 pounds/acre urea. The total spring nitrogen rate was 121 pounds/acre. Tilt Fungicide was aerially applied on April 24, 2026, at 4 ounces/acre for control of leaf rust. Insect pressure remained below threshold and no treatment was recommended. The field was harvested on June 14, 2026, and yielded 50.0 bushels.

Cross County

The 38-acre field with Collins silt loam soil was located north of Cherry Valley and followed corn. A pre-plant fertilizer application of 1 ton/acre of poultry litter was applied, following conventional tillage. The field was drill planted on November 10, 2025, with Becks 731, insecticide and fungicide treated seed, at 120 pounds/acre. A delayed pre-emerge application of 2.5 ounces/acre Anthem Flex for ryegrass control was made on November 15, 2025. Wheat emerged on November 11, 2025, to a stand of 28.5 plants/ ft². An initial early spring fertilizer application of 75 pounds/acre urea plus 75 pounds/acre ammonium sulfate was ground applied on February 25, 2026. The final nitrogen application of 150 pounds/acre urea was ground applied on March 25, 2026. The total spring nitrogen applied was 120 pounds/acre. Miravis Ace fungicide was aerially applied at flowering on April 25, 2026, at 13.7 ounces/acre for Fusarium Head Blight suppression and leaf rust control. Insect pressure remained below threshold and no treatment was recommended. The field was harvested on June 3, 2026, and yielded 77.0 bushels/acre.

Poinsett County

The 36-acre field with Falaya and Collins silt loam soil was located north of Harrisburg and followed soybeans. A pre-plant fertilizer application of 12-40-0-10S-1zn was applied, following minimum tillage. The field was planted on November 3, 2025, with Progeny Turbo, insecticide and fungicide treated seed, at 100 pounds/acre. A delayed pre-emerge application of 2.5 ounces/acre Zidua plus 32 ounces/acre glyphosate was applied. The field emerged on November 10, 2026, to a plant stand of 25 plants/ ft². An initial early spring fertilizer application of 125 pounds/acre urea plus 25 pounds/acre ammonium sulfate was applied on February 12,

2026, by ground application. On February 20, 2026, an aerial application of 15 ounces Axial Bold was applied for control of oats from the previous year's oat production. A ground application was made on February 27, 2026, of .75 ounces/acre Harmony Extra for broadleaf control. The final spring nitrogen application of 125 pounds/acre urea plus 25 pounds/acre ammonium sulfate was made on February 27, 2026, by ground. The total spring nitrogen applied was 126 pounds/acre. Insect and disease pressure did not reach threshold, and conditions did not favor Fusarium Head Blight. The field was harvested on June 6, 2026, and yielded 68.7 bushels/acre.

Table1. General Agronomic Information of Verification Fields in 2025-2026.							
County	**Variety**	**Acres**	**Planting Method**	**Seeding Rate lb/a**	**Planting Date**	**Previous Crop**	**Yield Bu/a**
Crittenden	Progeny Buster	254	Broadcast	120	11/17	Soybean	50
Cross	Becks 731	38	Drilled	120	11/10	Corn	77
Poinsett	Progeny Turbo	36	Drilled	100	11/3	Soybean	68.3
Average		**109**					**65.1**

Table 2. Soil Type and Fertilizer Inputs for 2025-2026 Wheat Verification Fields.				
County	**Soil Type**	**Fall Fertilizer**	**Spring Fertilizer**	**Total Spring Nitrogen**
Crittenden	Dubbs Silt Loam	0-46-50	1st, 130# urea + 70# ammonium sulfate; 2nd, 100# urea	121
Cross	Collins Silt Loam	1 ton Poultry litter	1st, 75# urea + 75# ammonium sulfate; 2nd, 150# urea	120
Poinsett	Falaya & Collins Silt Loam	12-40-0-10S-1zn	1st, 125# urea + 25# ammonium sulfate; 2nd, 125# urea + 25# ammonium sulfate	126
Average				**122 lbs N**

Table 3. Pesticide Information for the 2025-2026 Wheat Verification Fields.			
County	**Herbicide**	**Insecticide**	**Foliar Fungicide**
Crittenden	Spring: 15 oz. Axial Bold, .75 oz Harmony Extra	-	4 oz. Tilt
Cross	Fall: 2.5 oz. Anthem Flex	-	13.7 oz. Miravis Ace
Poinsett	Fall: 32 oz. glyphosate, 2.5 oz. Zidua Spring:15 oz. Axial Bold, .75 oz. Harmony Extra	-	-

Economic Analysis of the 2026 Wheat Research Verification Program

This section reports information on costs and returns for the 2026 Wheat Research Verification Program (WRVP). Records of field operations on each field are the basis for estimating these costs. The field records were compiled by the WRVP coordinator, county Extension agents, and cooperators. Production data from the 3 fields were applied to determine costs and returns above operating costs, as well as total specified costs. Operating costs per bushel and total costs per bushel indicate the commodity price needed to meet each cost type.

Production expenses are those expenditures that generally require annual cash outlays and would be included in an annual operating loan application. Actual quantities of all production inputs as reported by the cooperators are used in this analysis. Input prices are determined by data from the fall 2025 Crop Enterprise Budgets published by the Cooperative Extension Service. 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 and maintenance costs should be regarded as estimated values, and actual cash outlays could differ as producers utilize employee labor for equipment maintenance.

Ownership 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, total costs, costs per bushel, and returns are presented in Table 4. Costs in this report do not include land costs, management, or other expenses and fees not associated with production. Budget summaries for wheat are presented in Table 4. The price received for wheat grain was estimated to be $5.65/bu. and is determined by the Arkansas average cash price during the reported harvest period of the WRVP fields. Average wheat yield was 65.1 bu. per acre.

Average operating costs for wheat in Table 4 are $357.30 per acre. Table 5 indicates that fertilizers and nutrients are the largest expense category at $162.90 per acre, or 46% of total production expenses. Seed cost is the second largest expense category at $36.27 per acre, or 10% of total production expenses.

With an average yield of 65.1 bu. per acre, average operating costs are $5.45/bu. Operating costs range from a low of $353.29 per acre in Poinsett County to a high of $362.58 per acre in the Cross County field. Returns to operating costs average $10.52 per acre. The low is -$73.53 in Crittenden County, and the high is $72.47 in Cross County. Average fixed costs are $92.81 per acre, which leads to average total costs of $450.11 per acre. Returns to total costs average -$82.29 per acre with a low of -$134.59 in Crittenden County and a high of -$39.54 in Cross County. Total specified costs average $7.07/bu.

Table 4. 2026 Operating Costs, Total Costs, and Returns

County	Operating Costs	Operating Costs per Bushel	Returns to Operating Costs	Total Fixed Costs	Total Costs[1]	Returns to Total Costs	Total Costs per Bushel
Crittenden	356.03	6.47	-73.53	61.06	417.09	-134.59	8.34
Cross	362.58	4.70	72.47	112.01	474.59	-39.54	6.16
Poinsett	353.29	5.17	32.61	105.36	458.65	-72.75	6.71
Average	**357.30**	**5.45**	**10.52**	**92.81**	**450.11**	**-82.29**	**7.07**

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

Table 5. 2026 Revenue and Expenses per Acre

	Field			
Revenue	Crittenden	Cross	Poinsett	**Average**
Yield (bu.)	50.0	77.0	68.3	65.1
Price ($/bu.)	5.65	5.65	5.65	5.65
Total Crop Revenue	**282.50**	**435.05**	**385.90**	**367.82**
Expenses				
Seed	38.40	38.40	32.00	36.27
Fertilizers & Nutrients	165.56	171.63	151.51	162.90
Chemicals	16.29	34.44	31.60	27.44
Custom Applications	59.50	10.00	38.50	36.00
Diesel Fuel	7.84	18.42	15.42	13.89
Irrigation Energy Costs	0.00	0.00	0.00	0.00
Input Costs	**287.59**	**272.89**	**269.03**	**276.50**
Crop Insurance	27.00	27.00	27.00	27.00
Repairs & Maintenance[1]	11.72	20.68	19.52	17.31
Labor, Field Activities	3.16	8.42	6.69	6.09
Scouting/Consultant Fee	0.00	0.00	0.00	0.00
Production Expenses	**329.47**	**328.99**	**322.24**	**326.90**
Interest	13.59	13.57	13.29	13.48
Post-harvest Expenses	13.00	20.02	17.76	16.93
Total Operating Expenses	**356.03**	**362.58**	**353.29**	**357.30**
Returns to Operating Expenses	**-73.53**	**72.47**	**32.61**	**10.52**
Capital Recovery & Fixed Costs	61.06	112.01	105.36	92.81
Total Specified Expenses[2]	**417.09**	**474.59**	**458.65**	**450.11**
Returns to Specified Expenses	**-134.59**	**-39.54**	**-72.75**	**-82.29**
Operating Expenses/bu.	6.47	4.70	5.17	5.45
Total Specified Expenses/bu.	8.34	6.16	6.71	7.07