

2009 Arkansas



U.S. Department of Agriculture and County Governments Cooperating

The Wheat Research Verification Program
is funded by Arkansas wheat producers
through checkoff monies administered by
the Arkansas Wheat Promotion Board.

Table of Contents

	Page
Authors and Acknowledgments.....	2
Abstract.....	3
Introduction.....	4
WRVP Methodology.....	5
Results and Discussion.....	7
Table 1. Variety, Field Size, and Preplant Fertilizer, WRVP Fields, 2009.....	7
Table 2. General Soils Information, WRVP Fields, 2009.....	8
Table 3. Previous Crop and Preplant Tillage Operations for WRVP Fields, 2009.....	8
Table 4. Variety, Seeding Date, Rate, and Method, WRVP Fields, Fall, 2008.....	8
Table 5. Spring Nitrogen, WRVP Fields, 2009.....	10
Table 6. Weed, Disease, and Insect Summary, WRVP Fields, 2009.....	10
Table 7. Harvest Date, Grain Yield, Test Weight for WRVP Fields and Pounds of Nitrogen per Bushel, 2009.....	11
Economic Analysis.....	11
Table 8. Estimated Costs per Acre and Breakeven Prices.....	14
Table 9. Estimated Returns per Acre.....	15
Appendix, Economic Analysis By County.....	16

2009 Wheat Research Verification Program

Conducted by:

Mr. Chris Grimes, WRVP coordinator
Mr. Steve Kelley, WRVP coordinator
Mr. Kevin W. Lawson, corn and grain sorghum verification coordinator
Dr. Jason P. Kelley, extension agronomist
Mr. Scott Stiles, extension economist

County Agents	Cooperators	County
Mr. Grant Beckwith	Mr. Ken Ainsworth	Arkansas
Mr. Jason Osborn	Mr. Bart Turner	Crittenden
Mr. Wes Kirkpatrick and Mr. A.J. Hood	Mr. Lee Walt	Desha
Mr. Joe Vestal	Mr. Hershel and Shane Kitchens	Lafayette
Mr. Steven Stone	Mr. John Freeman	Lincoln
Mr. Lance Kirkpatrick	Mr. Kenny and Mike Schluterma	Logan
Mr. Keith Perkins	Mr. Mart Thaxton	Lonoke
Mr. Shawn Payne	Mr. Willie Prowell	Phillips
Mr. Phil Sims	Mr. Tim Ralston	Pope
Mr. Mitch Crow	Mr. Sam Bradley	St. Francis

Acknowledgements:

Agricultural Experiment Station, Fayetteville

Dr. Gene Milus, professor, Department of Plant Pathology
Dr. Robert Bacon, department head, Department of Crop, Soil, and Environmental Sciences

Extension Service Specialists

Dr. Rick Cartwright, extension plant pathologist
Dr. Scott Monfort, extension plant pathologist
Mr. Cliff Coker, extension plant pathologist
Dr. Ken Smith, extension weed scientist
Dr. Bob Scott, extension weed scientist
Dr. Leo Espinoza, extension soils specialist
Dr. Gus Lorenz, extension entomologist
Dr. Terry Kirkpatrick, extension plant pathologist

Special acknowledgment to the members of the Arkansas Wheat Promotion Board:

Mr. Morris Crandall	Mr. Terry Dabbs	Mr. Danny Smith
Mr. Cal McCastlain	Mr. Jackie Prince	Mr. Tim Smith
Mr. Blake Swears	Mr. William Turner	Mr. Barry Walls

Abstract

The 2009 Wheat Research Verification Program (WRVP) was implemented by the University of Arkansas Cooperative Extension Service on 10 producer fields located across Arkansas. Cooperators from the counties selected eight varieties from a short list provided by the agent and research verification coordinator. These varieties were selected based upon multi-year performance and characteristics determined by the University of Arkansas wheat variety testing program. Soil types for fields enrolled in the program ranged from silt loam to clay, with previous crops of soybean, corn, summer fallow, and sunflower. Seeding dates ranged from October 8 through November 11, 2008, with seeding rates varying from 90 to 210 lbs/ac. Five fields were drill seeded while five were broadcast seeded. Six of the 10 fields were treated with herbicides. Foliar fungicides were applied to control leaf rust and/or septoria leaf blotch near heading in three of the 10 verification fields. Heavy rainfall during May favored disease development, especially in the southern portion of the state. Fusarium head blight was especially problematic in central and northern fields, and is largely responsible for low yields in a few locations. Three fields were treated for armyworms with pyrethroid insecticides. Harvest dates ranged from June 1 through June 15. The average yield for WRVP fields was 53.8 bu/ac, compared to the state average of 44 bu/ac. Yields ranged from 15 bu/ac in Logan County to 63.9 bu/ac in Crittenden County. Yields were better than expected in many fields, considering the heavy rainfall during May. Fusarium head blight severely reduced yields in the Arkansas River Valley (Logan and Pope Counties), and to a lesser extent throughout the state. Field drainage was also a problem with the wet spring, and fields with poor drainage had a noticeably lower yield. Weather during early June was favorable for efficient harvest. An economic analysis was conducted using a budget generator to estimate specific costs of production for each field. A full explanation of each field's profitability is found beginning on page 13. 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 a 23-year period, the WRVP has averaged 13 bu/ac greater than the state average yield. The program is funded by the wheat check-off dollars and administered through the Arkansas Wheat Promotion Board.

A full report of the 2008-2009 Wheat Research Verification Program can be found at the following Web site:

<http://www.aragriculture.org/crops/wheat/verification/default.htm>

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.

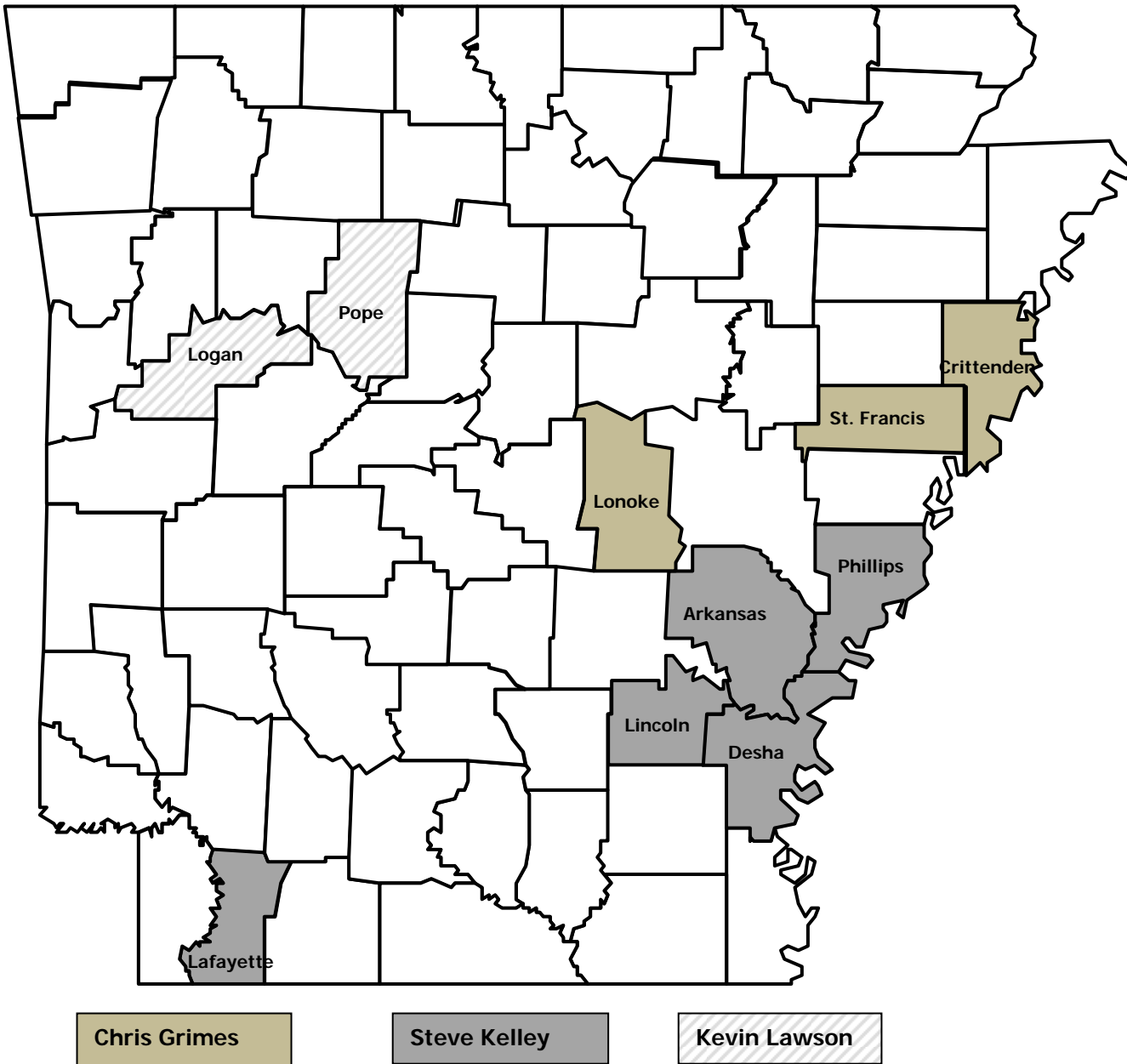
The WRVP program is designed as on-farm demonstrations of all the research-based recommendations required to grow wheat profitably in Arkansas. The WRVP program is part of the University of Arkansas Extension Service's goal of helping wheat producers make economically, agronomically, and environmentally 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.
3. To demonstrate that consistently high yields of wheat can be produced economically with the use of available technology and inputs.
4. To identify specific problems and opportunities in Arkansas wheat production for further investigation.
5. To promote timely cultural and management practices among all wheat farmers.
6. To provide training and assistance to county agents with limited expertise in wheat production.

2009 Wheat Research Verification Program Fields

Ten farms enrolled a field in the Wheat Research Verification Program in the fall of 2008. The fields were located on commercial wheat farms and ranged in size from 13 to 130 acres. The locations of the WRVP fields are shown in Figure 1, designated according to the WRVP coordinator responsible for each field.

Figure 1. Location of the 2009 WRVP Fields



The program is conducted for two consecutive years with each grower/cooperator. When an interested cooperator was identified, the cooperator, county agent, and specialist selected a field to enroll in the program in the fall of 2008. Prospective fields are required to meet the following criteria specified by the WRVP advisory committee:

1. Field size of at least 15 acres.
2. A yield potential equal to or greater than the county average.
3. A soil pH above 5.6.
4. A previous crop of corn, sorghum, soybeans, summer fallow, rice, or pasture.
5. The potential for good surface drainage.

A representative soil sample of the field was analyzed and the field was inspected by the coordinator and county agent. When the soil test results were obtained, the county agent, cooperator, and coordinator met to discuss recommended practices for seedbed preparation, wheat variety selection, and fertilization. All management decisions were made based on current extension recommendations.

For situations where there were no specific recommendations included in the field plan, a member of the Wheat Verification Committee was consulted. As often as practical, members of the committee were consulted and updated on the condition of the fields. Once seedbed preparation began, the day-to-day management decisions were made by the county agent and coordinator with assistance from appropriate specialists and researchers as conditions warranted. Data were collected on stand counts, growth stage, tillering, heads per square foot, diseases, weeds, and insects during the course of the growing season. Grain yields and test weights were determined by elevator weigh tickets on all WRVP fields.

An economic analysis of each field was conducted by an extension economist and is included in the appendix of this report. To facilitate comparisons among fields and to allow year-to-year comparisons, average costs of certain operations are computed and used to generate the budgets in this report.

Results and Discussion

The variety, field size and preplant fertilizer for each WRVP field are listed in Table 1. The average field size was 47 acres ranging from 13 to 130 acres.

Table 1. Variety, Field Size, and Preplant Fertilizer, WRVP Fields 2009

County	Variety	Field Size (Acres)	Preplant Fertilizer ¹ (lbs/ac)
Arkansas	Pioneer 26R22	130	0-20-30
Crittenden	FFR 8302	18	None
Desha	Armor 260Z	26	0-30-60
Lafayette	Terral LA 841	130	None
Lincoln	Progeny 166	33	None
Logan	AgriPro Beretta	19.1	None
Lonoke	AgriPro Magnolia	31	0-20-30
Phillips	AgriPro Beretta	27	None
Pope	AgriPro Panola	40	2.5 tons Chicken Litter
St. Francis	Armor 260Z	13	None

¹Nitrogen – Phosphorus – Potassium.

Coordinators of the Wheat Research Verification Program met with the extension wheat agronomist to develop a short list of varieties suited to each potential verification field's environment. For those fields that were planted, the *Wheat Update*, a summary of variety trials conducted by the University of Arkansas Agricultural Experiment Station, was used to obtain yield, physiological, and disease data for certain varieties on a range of soil types. The producer made the final variety selection using those on the list provided by the county agent. The best overall disease resistance and yield history is sought in variety selection. Eight varieties were planted in the WRVP in the fall of 2008, reflecting the specific needs of different soil types, geographic regions, and the overall management strategy employed by the cooperators.

Table 2 shows the soil classification for each WRVP field. These fields consisted of clay, sand, and silt loam soils. The range in soil types reflects the range of soils where wheat could be planted in Arkansas during the fall of 2008.

Good surface drainage is key to profitable wheat production, and each WRVP cooperator was encouraged to provide the best drainage possible. Drainage furrows were constructed at regular intervals to enhance surface drainage in all fields. Additionally, growers were requested to monitor and maintain drainage from planting through harvest.

Table 2. General Soil Information, WRVP Fields 2009

County	Soil Classification
Arkansas	Dewitt/Immanuel/Stuttgart silt loam
Crittenden	Dundee silt loam, Sharkey clay
Desha	Hebert/Rilla silt loam;
Lafayette	Rilla/Severn silt loam
Lincoln	Rilla silt loam, Perry clay
Logan	Dardanelle silt loam/ Roellen silty clay
Lonoke	Calloway/Crowley/Loring/Stuttgart silt loam
Phillips	Calloway/Falaya/Loring/Memphis silt loam
Pope	Dardanelle/Rilla silt loam
St. Francis	Alligator/Sharkey clay

Previous crop and tillage operations are listed in Table 3. Five fields were planted following soybean, three following corn, one following sunflower, and one that was fallow the previous growing season. Conventional tillage operations were used for seedbed preparation in all fields.

Table 3. Previous Crop and Preplant Tillage Operation for WRVP Fields, 2009

County	Previous Crop	Tillage Operations
Arkansas	Soybean	Disk, Field Cultivate (2X)
Crittenden	Corn	Disk, Field Cultivate
Desha	Corn	Disk (2X), Rolled
Lafayette	Sunflower	Disk (2X)
Lincoln	Fallow	Disk (2X), Harrow
Logan	Corn	Disk (2X), Field Cultivate
Lonoke	Soybean	Disk, Field Cultivate
Phillips	Soybean	Disk, Field Cultivate
Pope	Soybean	Field Cultivate
St. Francis	Soybean	Disk (2X), DMI (2X), Harrow

The seeding date and rate for each county and variety are given in Table 4. The recommended planting dates for wheat are: North Arkansas – October 1 through October 30; Central Arkansas – October 10 through November 10; South Arkansas – October 15 through November 20.

Table 4. Variety, Seeding Date, Rate, Method, WRVP Fields, Fall, 2008

County	Variety	Seeding Date	Emerg. Date	Seeding Rate (lbs/ac)	Seeding Method
Arkansas	Pioneer 26R22	27-Oct	2-Nov	150	Drill
Crittenden	FFR 8302	11-Oct	16-Oct	90	Drill
Desha	Armor 260Z	8-Oct	13-Oct	180	Broadcast
Lafayette	Terral LA 841	8-Oct	13-Oct	100	Broadcast
Lincoln	Progeny 166	25-Oct	1-Nov	140	Broadcast
Logan	AgriPro Beretta	22-Oct	27-Oct	120	Drill
Lonoke	AgriPro Magnolia	22-Oct	27-Oct	126	Drill
Phillips	AgriPro Beretta	4-Nov	10-Nov	150	Drill
Pope	AgriPro Panola	4-Nov	10-Nov	165	Broadcast
St. Francis	Armor 260Z	25-Oct	1-Nov	210	Broadcast

Seeding rates ranged from 90 to 210 pounds per acre. The recommended seeding rates vary according to seed size, seedbed conditions, anticipated germination, and seedling survival. Seeding rates are designed to achieve a final stand of 26 plants per square foot. Five fields were drill seeded while five fields were broadcast seeded.

Information on spring nitrogen applications are displayed in Table 5 below. Total applied nitrogen ranged from 115 lbs/acre on the Lafayette and Logan County fields to 148 lbs/acre in Pope County. The average spring nitrogen rate was 123.88 lbs/acre.

Spring nitrogen application rates are based on soil texture, yield potential, and previous crop. On clay soils recommended spring nitrogen is 140 lb N/ac, and 160-170 lb N/ac when yield potential is greater than 70 bu/ac.

On loamy soils with good drainage, 110-120 pounds of nitrogen per acre is generally recommended for high yields. A single application at mid-tillering stage of wheat development may often satisfy the nitrogen requirements of the crop. However, heavy or frequent spring rainfall causes saturated soils and subsequent loss and/or leaching of nitrates outside the root zone. Thus, split applications of nitrogen are often required to avoid excessive nitrogen losses. In addition, standing water may cause nitrogen losses that can be corrected with supplemental fertilizer of 20-40 pounds of nitrogen per acre, according to extension recommendations. Frequent rainfall, heavy rainfall, and standing water did not pose as a problem on WRVP fields in the spring. Spring nitrogen was applied in a timely manner in WRVP fields as well as the majority of wheat fields in Arkansas in 2009.

All 2009 WRVP fields received split applications of nitrogen, with Pope County receiving a third application due to loss from excessive rainfall.

Table 5. Spring Nitrogen, WRVP Fields, 2009

County	First Application		Second Application		Total lb N/A
	Date	Source	Date	Source	
Arkansas	2/9	Urea	3/6	Urea	115
Crittenden	2/25	Urea/Am. Sulfate	3/24	Urea	114
Desha	2/9	Urea/Am. Sulfate	3/6	Urea	114
Lafayette	1/27	32-0-0	2/24	12-0-0-26 + 32-0-0	102.5
Lincoln	2/26	Urea/Am. Sulfate	3/10	Urea	114
Logan	2/19	Urea/Am. Sulfate	3/13	Urea	113
Lonoke	2/9	Urea	3/21	Urea	138
Phillips	2/7	Urea/Am. Sulfate	3/7	Urea	114
Pope	1/15	Am. Sulfate	3/6	Urea	117
St. Francis	3/9	Urea/DAP	3/21	Urea	124

In three WRVP fields leaf rust or septoria reached treatment level required treatment with a recommended foliar fungicide application of Quilt. Three of the 10 fields were treated with Mustang Max or Karate for armyworms late in the season. Six of the 10 fields were treated with Axial or Osprey for ryegrass control. A summary of pest management practices are displayed in Table 6.

Table 6. Weed, Disease, and Insect Summary - WRVP, 2009

County	Pest Summary and Chemical Application
Arkansas	14 oz. Quilt
Crittenden	14 oz. Quilt, 2.8 oz. Mustang Max
Desha	4.75 oz. Osprey, 14 oz. Quilt, 3.2 oz. Mustang Max
Lafayette	16.4 oz. Axial
Lincoln	16.4 oz. Axial, 0.5 oz. Peak
Logan	0.33 oz. Peak, 4.75 oz. Osprey
Lonoke	1.83 oz. Karate
Phillips	0.6 oz. Harmony Extra
Pope	4.75 oz. Osprey
St. Francis	16.4 oz. Axial

The harvest date, grain yield, test weight, and pounds of nitrogen per bushel are shown in Table 7. Harvest dates ranged from June 1 through June 15. Average yield for the WRVP was 53.8 bu/ac, compared to a state average yield of 44.0 bu/ac. Yields ranged from 15.0 bu/ac in Logan County to 63.9 in Crittenden County.

The WRVP attempts to avoid low test weights by planting varieties with good test weight characteristics and timely harvest. Late season disease presence such as fusarium head scab and septoria glume blotch, along with the heavy rainfall in May, contributed to lower test weights this year compared to 2008.

The pounds of nitrogen per bushel variable is a simple ratio of total applied nitrogen divided by the grain yield. It attempts to measure the efficiency of nitrogen fertilizer applications. The efficiency ranged from 1.43 lbs N/bu to 3.07 lbs N/bu and averaged 2.01 lb N/bu of wheat.

Table 7. Harvest Date, Grain Yield, Test Weight for WRVP Fields, 2009

County	Harvest Date	Test Weight (lb/bu)	Yield (bu/ac at 13.5%)	Pounds N/bu
Arkansas	6 June	57	63	1.97
Crittenden	7 June	57	63.9	1.78
Desha	4 June	57	60	1.9
Lafayette	15 June	54.4	60	1.71
Lincoln	9 June	55.5	46	2.48
Logan	4 June	53.6	15	7.53
Lonoke	1 June	56	52	2.65
Phillips	15 June	54.9	52	2.19
Pope	12 June	53.7	27	4.33
St. Francis	9 June	55.5	40	3.1
WRVP Average:				53.8
Predicted State Yield Average:				44.0

ECONOMIC ANALYSIS: 2009 WRVP

This section provides information on the development of estimated production costs for the 2009 Wheat Research Verification Program. Records of field operations on each field provided the basis for estimating these costs (Appendix). The field records were compiled by participating county extension faculty and the coordinators of the Wheat Research Verification Program. Presented in this analysis are specified operating and ownership costs for each trial. Not included are other overhead costs, insurance costs, and opportunity costs for management and unpaid family labor. Assuming a 25 percent share rent for each field incorporates land costs.

Direct Expenses

Direct expenses 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 were used in this analysis. The prices used for these inputs were largely provided by the producer cooperators. When necessary, input prices were utilized from the “2009 Wheat Cost of Production Estimates” published by the Cooperative Extension Service.

Fuel and repair costs for machinery were calculated using a budget generator based on parameters and standards published in the American Society of Agricultural Engineers 1993 Handbook. Therefore, the producers' actual machinery costs will vary from the machinery cost estimates that are presented in this report. However, the producers' actual field operations were used as a basis for calculations and his equipment size and type were matched as closely as possible to the existing data set used in the annual set of state crop budgets.

Direct expenses for the 10 WRVP fields ranged from \$115.60 per acre for Logan County to \$210.67 per acre for Phillips County and averaged \$154.18 per acre. After reaching record high levels in August of 2008, fertilizer and fuel prices steadily declined into the spring of 2009. Direct expenses in 2009 were \$61.16 per acre or 28 percent lower than in 2008. Direct expenses per bushel ranged from \$2.00 in Lafayette County to \$7.71 in Logan County and averaged \$3.18 per bushel.

Fixed Expenses

The fixed expenses category in Table 8 represents the cost of owning and using farm equipment. These costs can vary greatly from one farm to another depending on the farm's size, management, and annual use of machinery. The fixed expenses presented in Table 8 include depreciation and interest. These costs are based on estimated initial cost and expected useful life of machinery similar to that used by the producer. Ownership costs were allocated on a per acre basis using estimated performance rates and hours of annual use. Calculations were made by using a budget generator based on parameters and standards published in the American Society of Agricultural Engineers 1993 Handbook. Economic costs may differ from short-run tax-based cash accounting figures for a particular year. The economic approach spreads these costs over the entire useful life of the machinery. In the long run, the farm business must cover these costs to remain viable.

Fixed expenses for the 10 fields ranged from \$16.21 per acre for Lincoln County to \$27.89 per acre for Logan County and averaged \$19.52 per acre. High fixed expenses can be the result of numerous trips across the field.

Using custom operators rather than owning equipment replaces fixed expenses with direct expenses (custom work). Cooperators with high fixed expenses but low custom work expenses typically use high-clearance sprayers for chemical applications and spreaders (buggies) for seeding and fertilizer applications instead of hiring aerial or ground custom applicators.

Total Specified Expenses

Since fixed costs can be substituted for direct cost and vice versa, total specified expense is calculated to give the true picture of expenses. Not included in the "total specified expenses" in Table 8 are charges for land, risk, overhead, and management. The overhead and management costs would be better addressed at the whole-farm level and are not included in this analysis. Total specified expenses per acre for the 10 fields ranged from \$137.56 for Lafayette County to \$231.46 for Phillips County and averaged \$173.69. Total specified expenses per bushel ranged from \$2.29 in Lafayette County to \$9.57 in Logan County and averaged \$3.60 for the 10 fields.

Land Costs

Land costs incurred by producers participating in the Wheat Research Verification Program would likely vary from land ownership, cash rent, or some form of crop share arrangement. Therefore, a comparison of these divergent land cost structures would be expansive and contribute little to this analysis. For this reason, a 25 percent crop share rental arrangement with no cost sharing was assumed. This is not meant to imply that this arrangement is normal or that it should be used in place of existing arrangements. It is simply a consistent measure to be used across all trials. There are many other tenancy arrangements that are in use.

Table 8 presents the cost of production per bushel after 25 percent of the yield is given to the landlord. These break-even prices ranged from \$3.06 per bushel in Lafayette County to \$12.75 per bushel in Logan County. The average cost of production including rent for the 10 fields was \$4.81 per bushel.

Returns per Acre

Break-even prices, such as those displayed in Table 8, can be useful in making marketing decisions. However, having the lowest break-even price does not always guarantee the highest returns. The total yield available for sale still plays a key role in determining returns per acre. Per-acre returns for each of the 10 fields are presented in Table 9. Government payments and other sources of farm income, which contribute to overall farm income, have been ignored in this table. The wheat price used in Table 9 (\$4.81/bu) is a compilation of the 2008-09 marketing year monthly average new crop bids offered by Arkansas grain elevators. This information was obtained from the USDA Agricultural Marketing Service.

The most profitable field (returns over total expense and rent), Lafayette County had net returns of \$78.89 per acre. The least profitable field was Logan County losing \$89.38 per acre. The objective in any one year is to receive sufficient sales to at least cover direct expenses and rent. This allows the business to repay operating debts and farm again next year. Across several years, per acre returns over total expenses and rent in Table 9 need to be positive for the farm business to remain solvent.

The general trend in Table 9 shows that the higher yielding fields resulted in higher net returns. Four of the 10 WRVP fields yielded above the average of 53.8 bushels per acre. Each of these fields had net returns over total expenses and rent which exceeded the WRVP average of \$20.40 per acre. Six of the WRVP fields yielded below 53.8 bushels per acre. All six of these fields had below average returns to total expenses and rent. Five of these six fields had negative or no returns above total expense and rent due to either above average expenses or below average yields which ranged from 15 to 52 bushels per acre.

Table 8. Estimated costs per acre and breakeven prices: 2009 Wheat Research Verification Program

	Arkansas	Crittenden	Desha	Lafayette	Lincoln	Logan	Lonoke	Phillips	Pope	St. Francis	W. Average	Total Acres
Acres	130	18	26	130	33	19	31	27	40	13	47	467
Direct Exp.	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	
Custom Work	\$ 40.11	\$ 44.27	\$ 32.26	\$ 12.60	\$ 44.94	\$ 3.15	\$ 38.84	\$ 35.30	\$ 43.20	\$ 35.01	\$ 30.77	
Fertilizer	\$ 57.50	\$ 80.78	\$ 44.50	\$ 48.80	\$ 47.41	\$ 47.00	\$ 56.97	\$ 105.25	\$ 45.20	\$ 57.00	\$ 55.77	
Insecticide/Herbicide/surf.		\$ 4.56	\$ 8.96	\$ 13.78	\$ 20.05	\$ 20.39	\$ 6.47	\$ 8.79	\$ 16.25	\$ 13.78	\$ 9.47	
Fungicides	\$ 14.70	\$ 13.44	\$ 14.70								\$ 5.43	
Crop Seed	\$ 40.50	\$ 24.30	\$ 48.60	\$ 27.00	\$ 37.80	\$ 19.00	\$ 34.02	\$ 40.50	\$ 26.12	\$ 56.70	\$ 34.29	
Operator Labor	\$ 3.09	\$ 3.38	\$ 3.57	\$ 3.21	\$ 2.62	\$ 4.38	\$ 2.35	\$ 3.25	\$ 2.42	\$ 4.14	\$ 3.11	
Hand Labor		\$ 0.81	\$ 0.74	\$ 0.60		\$ 1.42	\$ 0.81	\$ 0.68	\$ 0.63	\$ 0.06	\$ 0.45	
Diesel Fuel ¹	\$ 6.38	\$ 6.41	\$ 6.34	\$ 6.14	\$ 5.67	\$ 10.55	\$ 4.09	\$ 6.71	\$ 5.20	\$ 10.59	\$ 6.32	
Repairs & Maint.	\$ 4.39	\$ 5.13	\$ 4.82	\$ 4.58	\$ 4.11	\$ 6.81	\$ 5.31	\$ 5.28	\$ 4.61	\$ 5.88	\$ 4.75	
Interest on Op. Cap.	\$ 4.13	\$ 4.67	\$ 4.05	\$ 3.09	\$ 4.16	\$ 2.90	\$ 3.86	\$ 4.91	\$ 3.95	\$ 4.48	\$ 3.83	
Total Direct Exp.²	\$ 170.80	\$ 187.75	\$ 168.54	\$ 119.80	\$ 166.76	\$ 115.60	\$ 152.72	\$ 210.67	\$ 147.58	\$ 187.64	\$ 154.18	
Total Fixed Exp.³	\$ 19.71	\$ 20.27	\$ 19.21	\$ 17.76	\$ 16.21	\$ 27.89	\$ 20.95	\$ 20.79	\$ 18.99	\$ 26.36	\$ 19.52	
Total Specified Exp.⁴	\$ 190.51	\$ 208.02	\$ 187.75	\$ 137.56	\$ 182.97	\$ 143.49	\$ 173.67	\$ 231.46	\$ 166.57	\$ 214.00	\$ 173.69	
Per Acre Yield ⁵	63.0	63.9	60.0	60.0	46.0	15.0	52.2	52.0	27.1	39.9	53.8	
Breakeven Price Over:												
Direct Expenses ⁶	\$2.71	\$2.94	\$2.81	\$2.00	\$3.63	\$7.71	\$2.93	\$4.05	\$5.44	\$4.70	\$ 3.18	
Total Expenses ⁷	\$3.02	\$3.26	\$3.13	\$2.29	\$3.98	\$9.57	\$3.33	\$4.45	\$6.14	\$5.36	\$ 3.60	
Total Expenses and Rent ⁸	\$4.03	\$4.34	\$4.17	\$3.06	\$5.30	\$12.75	\$4.44	\$5.93	\$8.18	\$7.15	\$ 4.81	

¹2008-09 average price for farm diesel is assumed to be \$1.73 per gallon.

³Specified out-of-pocket expenses, such as seed, fertilizer, herbicides, operating interest, machinery repairs, labor, etc.

³Total ownership costs which include charges for depreciation, taxes, and insurance.

⁴Total specified operating costs plus ownership costs.

⁵Yields adjusted to 13.5% moisture.

⁶Price per bushel required by the farmer to equal total specified operating costs. Does not include land, overhead, risk, and management cost.

⁷Price per bushel required by the farmer to equal total specified operating and ownership costs. Does not include land, risk, and management costs.

⁸Price per bushel required by the farmer to equal total specified operating, ownership, and land costs. Does not include risk and management costs.

Table 9. Estimated returns per acre: 2009 Wheat Research Verification Program

	Arkansas	Crittenden	Desha	Lafayette	Lincoln	Logan	Lonoke	Phillips	Pope	St. Francis	W. Average	Total Acres
Acres	130	18	26	130	33	19	31	27	40	13	47	467
Per Acre Yield ¹	63.0	63.9	60.0	60.0	46.0	15.0	52.2	52.0	27.1	39.9	53.8	
Sales Price ²	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	\$4.81	
Sales	\$303.03	\$307.36	\$288.60	\$288.60	\$221.26	\$72.15	\$251.08	\$250.12	\$130.54	\$191.92	\$258.79	
Total Direct Exp. ³	\$170.80	\$187.75	\$168.54	\$119.80	\$166.76	\$115.60	\$152.72	\$210.67	\$147.58	\$187.64	\$154.18	
Returns over Dir. Exp.	\$132.23	\$119.61	\$120.06	\$168.80	\$54.50	-\$43.45	\$98.36	\$39.45	-\$17.04	\$4.28	\$104.61	
Total Specified Exp. ⁴	\$190.51	\$208.02	\$187.75	\$137.56	\$182.97	\$143.49	\$173.67	\$231.46	\$166.57	\$214.00	\$173.69	
Returns over Total Exp.	\$112.52	\$99.34	\$100.85	\$151.04	\$38.29	-\$71.34	\$77.41	\$18.66	-\$36.03	-\$22.08	\$85.10	
Rent (25% share) ⁵	\$75.76	\$76.84	\$72.15	\$72.15	\$55.32	\$18.04	\$62.77	\$62.53	\$32.64	\$47.98	\$64.70	
Returns over Total Exp. and Rent	\$36.76	\$22.50	\$28.70	\$78.89	-\$17.03	-\$89.38	\$14.64	-\$43.87	-\$68.66	-\$70.06	\$20.40	

¹Yields adjusted to 13.5% moisture.

²Sales Price is the Arkansas monthly average new crop bids from September 2008 through June 2009 (source: USDA-AMS).

³Specified out-of-pocket expenses, such as seed, fertilizer, herbicides, operating interest, machinery repairs, labor, etc.

⁴Total specified operating costs plus ownership costs which include charges for depreciation, taxes, and insurance.

⁵A 25% crop share rent was assumed for a land charge. No cost sharing was assumed.

Appendix

Economic Analysis by County

Estimated operating expenses and crop input costs

Table 1.A Estimated costs per acre
Arkansas County 2008-09 Wheat Research Verification
University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Urea, Solid (46%N)	b lb	0.23	250.0000	57.50	_____
FUNGICIDES					
Quilt	oz	1.05	14.0000	14.70	_____
CROP SEED					
Wheat Seed Private	lb	0.27	150.0000	40.50	_____
CUSTOM HIRE					
Cstm Ap Grd Seed	acre	5.00	1.0000	5.00	_____
Cstm Ap Air Fert	lb	0.06	250.0000	15.63	_____
Cstm Ap Air Fung	acre	6.25	1.0000	6.25	_____
Cstm Haul Wheat	bu	0.21	63.0000	13.23	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2101	2.08	_____
Harvesters	hour	9.92	0.1021	1.01	_____
DIESEL FUEL					
Tractors	gal	1.73	2.4336	4.20	_____
Harvesters	gal	1.73	1.2617	2.18	_____
REPAIR & MAINTENANCE					
Implements	acre	1.78	1.0000	1.78	_____
Tractors	acre	0.85	1.0000	0.85	_____
Harvesters	acre	1.76	1.0000	1.76	_____
INTEREST ON OP. CAP.	acre	4.13	1.0000	4.13	_____
TOTAL DIRECT EXPENSES				170.80	_____
FIXED EXPENSES					
Implements	acre	5.95	1.0000	5.95	_____
Tractors	acre	5.99	1.0000	5.99	_____
Harvesters	acre	7.77	1.0000	7.77	_____
TOTAL FIXED EXPENSES				19.71	_____
TOTAL SPECIFIED EXPENSES				190.51	_____

Table 1.B Estimated resource use and costs for field operations, per acre
Arkansas County 2008-09 Wheat Research Verification
University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Disk Harrow	28'	MFWD 225	0.070	1.00	Oct	1.69	2.00	0.57	1.38	0.07	0.70				6.34
Field Cultivate	32'	MFWD 225	0.046	1.00	Oct	1.12	1.33	0.31	1.50	0.04	0.46				4.72
Cstm Ap Grd Seed	acre			1.00	Oct							1.0000	5.00	5.00	5.00
Wheat Seed Private	lb											150.0000	0.27	40.50	40.50
Field Cultivate	32'	MFWD 225	0.046	1.00	Oct	1.12	1.33	0.31	1.50	0.04	0.46				4.72
Roller	32' -12R30	MFWD 225	0.046	1.00	Oct	1.12	1.33	0.12	0.76	0.04	0.46				3.79
Cstm Ap Air Fert	lb			1.00	Feb							150.0000	0.06	9.38	9.38
Urea, Solid (46%N)	b lb											150.0000	0.23	34.50	34.50
Cstm Ap Air Fert	lb			1.00	Mar							100.0000	0.06	6.25	6.25
Urea, Solid (46%N)	b lb											100.0000	0.23	23.00	23.00
Cstm Ap Air Fung	acre			1.00	Apr							1.0000	6.25	6.25	6.25
Quilt	oz											14.0000	1.05	14.70	14.70
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											63.0000	0.21	13.23	13.23
TOTALS						8.99	13.76	1.78	5.95	0.31	3.09			152.81	186.38
INTEREST ON OPERATING CAPITAL															4.13
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															190.51

Table 2.A Estimated costs per acre
 Crittenden County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
DAP 18-46-0	lb	0.45	70.0000	32.03	_____
Urea, Solid (46% N)	lb	0.15	225.0000	33.75	_____
Amm Sulfate (21% N)	lb	0.17	50.0000	8.50	_____
CoRoN 25-0-0	gal	6.50	1.0000	6.50	_____
FUNGICIDES					
Quilt	oz	1.05	12.8000	13.44	_____
INSECTICIDES					
Mustang Max	oz	1.63	2.8000	4.56	_____
CROP SEED					
Wheat Seed Private	lb	0.27	90.0000	24.30	_____
CUSTOM HIRE					
Cstm Ap Grd Fert	acre	5.00	1.0000	5.00	_____
Cstm Ap Air Fert	lb	0.06	275.0000	17.19	_____
Cstm Ap Air - Critt	acre	4.33	2.0000	8.66	_____
Cstm Haul Wheat	bu	0.21	63.9000	13.42	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2383	2.37	_____
Harvesters	hour	9.92	0.1021	1.01	_____
HAND LABOR					
Implements	hour	8.60	0.0942	0.81	_____
DIESEL FUEL					
Tractors	gal	1.73	2.4432	4.23	_____
Harvesters	gal	1.73	1.2617	2.18	_____
REPAIR & MAINTENANCE					
Implements	acre	2.45	1.0000	2.45	_____
Tractors	acre	0.92	1.0000	0.92	_____
Harvesters	acre	1.76	1.0000	1.76	_____
INTEREST ON OP. CAP.	acre	4.67	1.0000	4.67	_____

TOTAL DIRECT EXPENSES				187.75	_____
FIXED EXPENSES					
Implements	acre	6.01	1.0000	6.01	_____
Tractors	acre	6.49	1.0000	6.49	_____
Harvesters	acre	7.77	1.0000	7.77	_____

TOTAL FIXED EXPENSES				20.27	_____

TOTAL SPECIFIED EXPENSES				208.02	_____

Table 2.B Estimated resource use and costs for field operations, per acre
 Crittenden County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Disk Harrow	24'	MFWD 190	0.081	1.00	Oct	1.69	2.19	0.58	1.41	0.08	0.81				6.68
Field Cultivate	24'	MFWD 225	0.062	1.00	Oct	1.50	1.77	0.28	1.34	0.06	0.62				5.51
Grain Drill	20'	MFWD 190	0.094	1.00	Oct	1.96	2.53	1.12	2.45	0.18	1.75				9.81
Wheat Seed Private	lb											90.0000	0.27	24.30	24.30
Cstm Ap Grd Fert	acre			1.00	Oct							1.0000	5.00	5.00	5.00
DAP 18-46-0	lb											70.0000	0.45	32.03	32.03
Cstm Ap Air Fert	lb			1.00	Feb							150.0000	0.06	9.38	9.38
Urea, Solid (46% N)	lb											100.0000	0.15	15.00	15.00
Amm Sulfate (21% N)	lb											50.0000	0.17	8.50	8.50
Cstm Ap Air Fert	lb			1.00	Mar							125.0000	0.06	7.81	7.81
Urea, Solid (46% N)	lb											125.0000	0.15	18.75	18.75
Cstm Ap Air - Critt	acre			1.00	Apr							1.0000	4.33	4.33	4.33
Quilt	oz											12.8000	1.05	13.44	13.44
CoRoN 25-0-0	gal											1.0000	6.50	6.50	6.50
Cstm Ap Air - Critt	acre			1.00	May							1.0000	4.33	4.33	4.33
Mustang Max	oz											2.8000	1.63	4.56	4.56
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											63.9000	0.21	13.42	13.42
TOTALS						9.09	14.26	2.45	6.01	0.43	4.19			167.35	203.35
INTEREST ON OPERATING CAPITAL															4.67
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															208.02

Table 3.A Estimated costs per acre
 Desha County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Amm Sulfate (21% N)	lb	0.17	50.0000	8.50	_____
Urea - (46% N)	lb	0.16	225.0000	36.00	_____
FUNGICIDES					
Quilt	oz	1.05	14.0000	14.70	_____
HERBICIDES					
Osprey 4.5 DF	oz	3.42	1.0925	3.74	_____
INSECTICIDES					
Mustang Max	oz	1.63	3.2000	5.22	_____
CROP SEED					
Wheat Seed Private	lb	0.27	180.0000	48.60	_____
CUSTOM HIRE					
Cstm Ap Air Fert	lb	0.06	125.0000	7.81	_____
Cstm Ap Air Fung	acre	6.25	1.0000	6.25	_____
Cstm Ap Air Insect	acre	5.60	1.0000	5.60	_____
Cstm Haul Wheat	bu	0.21	60.0000	12.60	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2536	2.52	_____
Harvesters	hour	9.92	0.1021	1.01	_____
Self-Propelled	hour	9.92	0.0040	0.04	_____
HAND LABOR					
Implements	hour	8.60	0.0841	0.72	_____
Self-Propelled	hour	8.60	0.0020	0.02	_____
DIESEL FUEL					
Tractors	gal	1.73	2.3841	4.12	_____
Harvesters	gal	1.73	1.2617	2.18	_____
Self-Propelled	gal	1.73	0.0229	0.04	_____
REPAIR & MAINTENANCE					
Implements	acre	2.21	1.0000	2.21	_____
Tractors	acre	0.83	1.0000	0.83	_____
Harvesters	acre	1.76	1.0000	1.76	_____
Self-Propelled	acre	0.02	1.0000	0.02	_____
INTEREST ON OP. CAP.	acre	4.05	1.0000	4.05	_____
TOTAL DIRECT EXPENSES				168.54	_____
FIXED EXPENSES					
Implements	acre	5.41	1.0000	5.41	_____
Tractors	acre	5.91	1.0000	5.91	_____
Harvesters	acre	7.77	1.0000	7.77	_____
Self-Propelled	acre	0.12	1.0000	0.12	_____
TOTAL FIXED EXPENSES				19.21	_____
TOTAL SPECIFIED EXPENSES				187.75	_____

Table 3.B Estimated resource use and costs for field operations, per acre
 Desha County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Disk Harrow	32'	2WD 190	0.061	2.00	Oct	2.49	2.94	1.10	2.66	0.12	1.22				10.41
Spin Spreader	5 ton	2WD 190	0.042	1.00	Oct	0.85	1.01	0.26	0.59	0.08	0.78				3.49
Wheat Seed Private	lb											180.0000	0.27	48.60	48.60
Roller	32' -12R30	2WD 150	0.046	1.00	Oct	0.74	0.83	0.12	0.76	0.04	0.46				2.91
Sprayer(300-450Gal)		60'	0.017	0.23	Feb	0.06	0.12			0.00	0.06				0.24
Osprey 4.5 DF	oz											1.0925	3.42	3.74	3.74
Spin Spreader	5 ton	MFWD 190	0.042	1.00	Feb	0.87	1.13	0.26	0.59	0.08	0.78				3.63
Amm Sulfate (21% N)	lb											50.0000	0.17	8.50	8.50
Urea - (46% N)	lb											100.0000	0.16	16.00	16.00
Cstm Ap Air Fert	lb			1.00	Mar							125.0000	0.06	7.81	7.81
Urea - (46% N)	lb											125.0000	0.16	20.00	20.00
Cstm Ap Air Fung	acre			1.00	Apr							1.0000	6.25	6.25	6.25
Quilt	oz											14.0000	1.05	14.70	14.70
Cstm Ap Air Insect	acre			1.00	Apr							1.0000	5.60	5.60	5.60
Mustang Max	oz											3.2000	1.63	5.22	5.22
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											60.0000	0.21	12.60	12.60
TOTALS						8.95	13.80	2.21	5.41	0.44	4.31			149.02	183.70
INTEREST ON OPERATING CAPITAL															4.05
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															187.75

Table 4.A Estimated costs per acre
 Lafayette County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Liquid Nitrogen 32%	gal	1.83	24.5000	44.84	_____
12-0-0-26	gal	1.32	3.0000	3.96	_____
HERBICIDES					
Axial	oz	0.84	16.4000	13.78	_____
CROP SEED					
Wheat Seed Private	lb	0.27	100.0000	27.00	_____
CUSTOM HIRE					
Cstm Haul Wheat	bu	0.21	60.0000	12.60	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2212	2.20	_____
Harvesters	hour	9.92	0.1021	1.01	_____
HAND LABOR					
Implements	hour	8.60	0.0703	0.60	_____
DIESEL FUEL					
Tractors	gal	1.73	2.2837	3.96	_____
Harvesters	gal	1.73	1.2617	2.18	_____
REPAIR & MAINTENANCE					
Implements	acre	2.03	1.0000	2.03	_____
Tractors	acre	0.79	1.0000	0.79	_____
Harvesters	acre	1.76	1.0000	1.76	_____
INTEREST ON OP. CAP.	acre	3.09	1.0000	3.09	_____

TOTAL DIRECT EXPENSES				119.80	_____
FIXED EXPENSES					
Implements	acre	4.34	1.0000	4.34	_____
Tractors	acre	5.65	1.0000	5.65	_____
Harvesters	acre	7.77	1.0000	7.77	_____

TOTAL FIXED EXPENSES				17.76	_____

TOTAL SPECIFIED EXPENSES				137.56	_____

Table 4.B Estimated resource use and costs for field operations, per acre
 Lafayette County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF TIMES			POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
			RATE	OVER	MTH	DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Disk Harrow	32'	MFWD 225	0.061	2.00	Oct	2.95	3.49	1.10	2.66	0.12	1.22				11.42
Spin Spreader	5 ton	2WD 170	0.042	1.00	Oct	0.76	0.86	0.26	0.59	0.08	0.78				3.25
Wheat Seed Private	lb											100.0000	0.27	27.00	27.00
Spray (Broadcast)	60'	MFWD 170	0.028	1.00	Jan	0.53	0.72	0.10	0.14	0.04	0.40				1.89
Axial	oz											16.4000	0.84	13.78	13.78
Liquid Nitrogen 32%	gal											7.5000	1.83	13.73	13.73
Spray (Broadcast)	60'	2WD 170	0.028	1.00	Feb	0.51	0.58	0.10	0.14	0.04	0.40				1.73
Liquid Nitrogen 32%	gal											17.0000	1.83	31.11	31.11
12-0-0-26	gal											3.0000	1.32	3.96	3.96
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											60.0000	0.21	12.60	12.60
TOTALS						8.69	13.42	2.03	4.34	0.39	3.81			102.18	134.47
INTEREST ON OPERATING CAPITAL															3.09
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															137.56

Table 5.A Estimated costs per acre
 Lincoln County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Urea - (46% N)	lb	0.16	243.1800	38.91	_____
Amm Sulfate (21% N)	lb	0.17	50.0000	8.50	_____
HERBICIDES					
Axial	oz	0.84	16.4000	13.78	_____
Peak	oz	12.54	0.5000	6.27	_____
CROP SEED					
Wheat Seed Private	lb	0.27	140.0000	37.80	_____
CUSTOM HIRE					
Cstm Ap Grd Seed	acre	5.00	1.0000	5.00	_____
Cstm Ap Air Fert	lb	0.06	275.0000	17.19	_____
Cstm Ap Air Herb	acre	6.00	2.0000	12.00	_____
Cstm Ap Air Fert	acre	6.00	0.1818	1.09	_____
Cstm Haul Wheat	bu	0.21	46.0000	9.66	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.1791	1.78	_____
Harvesters	hour	9.92	0.0851	0.84	_____
DIESEL FUEL					
Tractors	gal	1.73	2.0744	3.59	_____
Harvesters	gal	1.73	1.2047	2.08	_____
REPAIR & MAINTENANCE					
Implements	acre	1.73	1.0000	1.73	_____
Tractors	acre	0.72	1.0000	0.72	_____
Harvesters	acre	1.66	1.0000	1.66	_____
INTEREST ON OP. CAP.	acre	4.16	1.0000	4.16	_____
TOTAL DIRECT EXPENSES				166.76	_____
FIXED EXPENSES					
Implements	acre	3.77	1.0000	3.77	_____
Tractors	acre	5.10	1.0000	5.10	_____
Harvesters	acre	7.34	1.0000	7.34	_____
TOTAL FIXED EXPENSES				16.21	_____
TOTAL SPECIFIED EXPENSES				182.97	_____

Table 5.B Estimated resource use and costs for field operations, per acre
 Lincoln County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----Dollars-----				Dollars		-----Dollars-----				
Disk Harrow	28'	MFWD 225	0.070	2.00	Oct	3.37	3.99	1.15	2.76	0.14	1.39				12.66	
Cstm Ap Grd Seed	acre			1.00	Oct							1.0000	5.00	5.00	5.00	
Wheat Seed Private	lb											140.0000	0.27	37.80	37.80	
Harrow	40'	MFWD 225	0.038	1.00	Oct	0.94	1.11	0.14	0.25	0.03	0.39				2.83	
Cstm Ap Air Fert	lb			1.00	Feb							150.0000	0.06	9.38	9.38	
Urea - (46% N)	lb											100.0000	0.16	16.00	16.00	
Amm Sulfate (21% N)	lb											50.0000	0.17	8.50	8.50	
Cstm Ap Air Herb	acre			1.00	Feb							1.0000	6.00	6.00	6.00	
Axial	oz											16.4000	0.84	13.78	13.78	
Cstm Ap Air Fert	lb			1.00	Mar							125.0000	0.06	7.81	7.81	
Urea - (46% N)	lb											125.0000	0.16	20.00	20.00	
Cstm Ap Air Herb	acre			1.00	Mar							1.0000	6.00	6.00	6.00	
Peak	oz											0.5000	12.54	6.27	6.27	
Cstm Ap Air Fert	acre			0.18	Mar							0.1818	6.00	1.09	1.09	
Urea - (46% N)	lb											18.1800	0.16	2.91	2.91	
Header Wheat/Sorghum	30'	Rigid 275hp	0.085	1.00	Jun	3.74	7.34	0.44	0.76	0.08	0.84				13.12	
Cstm Haul Wheat	bu											46.0000	0.21	9.66	9.66	
						-----	-----	-----	-----	-----	-----				-----	
TOTALS						8.05	12.44	1.73	3.77	0.26	2.62			150.20		178.81
INTEREST ON OPERATING CAPITAL																4.16
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																182.97

Table 6.A Estimated costs per acre
 Logan County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Urea, Solid (46% N)	lb	0.15	200.0000	30.00	_____
Amm Sulfate (21% N)	lb	0.17	100.0000	17.00	_____
HERBICIDES					
Peak	oz	12.54	0.3300	4.14	_____
Osprey 4.5 DF	oz	3.42	4.7500	16.25	_____
CROP SEED					
Wheat Seed Saved	lb	0.15	120.0000	19.00	_____
CUSTOM HIRE					
Cstm Haul Wheat	bu	0.21	15.0000	3.15	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.3053	3.03	_____
Harvesters	hour	9.92	0.1021	1.01	_____
Self-Propelled	hour	9.92	0.0352	0.34	_____
HAND LABOR					
Implements	hour	8.60	0.1470	1.26	_____
Self-Propelled	hour	8.60	0.0176	0.16	_____
DIESEL FUEL					
Tractors	gal	1.73	4.6373	8.03	_____
Harvesters	gal	1.73	1.2617	2.18	_____
Self-Propelled	gal	1.73	0.1996	0.34	_____
REPAIR & MAINTENANCE					
Implements	acre	3.41	1.0000	3.41	_____
Tractors	acre	1.50	1.0000	1.50	_____
Harvesters	acre	1.76	1.0000	1.76	_____
Self-Propelled	acre	0.14	1.0000	0.14	_____
INTEREST ON OP. CAP.	acre	2.90	1.0000	2.90	_____

TOTAL DIRECT EXPENSES				115.60	_____
FIXED EXPENSES					
Implements	acre	8.38	1.0000	8.38	_____
Tractors	acre	10.66	1.0000	10.66	_____
Harvesters	acre	7.77	1.0000	7.77	_____
Self-Propelled	acre	1.08	1.0000	1.08	_____

TOTAL FIXED EXPENSES				27.89	_____

TOTAL SPECIFIED EXPENSES				143.49	_____

Table 6.B Estimated resource use and costs for field operations, per acre
 Logan County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC	LABOR	OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----Dollars-----				Dollars		-----Dollars-----				
Disk Harrow	32'	4WD 400	0.061	1.00	Sep	2.59	2.86	0.55	1.33	0.06	0.61					7.94
Disk Harrow	32'	4WD 400	0.061	1.00	Oct	2.59	2.86	0.55	1.33	0.06	0.61					7.94
Field Cultivate	42'	4WD 400	0.035	1.00	Oct	1.50	1.65	0.31	1.52	0.03	0.35					5.33
Grain Drill	30'	MFWD 225	0.062	1.00	Oct	1.51	1.79	1.01	2.21	0.12	1.16					7.68
Wheat Seed Saved	lb											120.0000	0.15	19.00		19.00
Sprayer(300-450Gal)		60'	0.017	1.00	Dec	0.24	0.54			0.02	0.25					1.03
Peak	oz											0.3300	12.54	4.14		4.14
Spin Spreader	5 ton	2WD 150	0.042	1.00	Feb	0.67	0.75	0.26	0.59	0.08	0.78					3.05
Urea, Solid (46% N)	lb											100.0000	0.15	15.00		15.00
Amm Sulfate (21% N)	lb											100.0000	0.17	17.00		17.00
Sprayer(300-450Gal)		60'	0.017	1.00	Mar	0.24	0.54			0.02	0.25					1.03
Osprey 4.5 DF	oz											4.7500	3.42	16.25		16.25
Spin Spreader	5 ton	2WD 150	0.042	1.00	Mar	0.67	0.75	0.26	0.59	0.08	0.78					3.05
Urea, Solid (46% N)	lb											100.0000	0.15	15.00		15.00
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01					14.00
Cstm Haul Wheat	bu											15.0000	0.21	3.15		3.15
TOTALS						13.95	19.51	3.41	8.38	0.60	5.80			89.54		140.59
INTEREST ON OPERATING CAPITAL																2.90
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																143.49

Table 7.A Estimated costs per acre
 Lonoke County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
0-20-30	lb	0.11	105.0000	11.97	_____
Urea, Solid (46% N)	lb	0.15	300.0000	45.00	_____
INSECTICIDES					
Karate Z	oz	2.76	1.8300	5.07	_____
CROP SEED					
Wheat Seed Private	lb	0.27	126.0000	34.02	_____
ADJUVANTS					
Penetrator Plus	oz	0.17	8.0000	1.40	_____
CUSTOM HIRE					
Cstm Ap Air Fert (b)	lb	0.05	405.0000	22.28	_____
Cstm Ap Air Insect	acre	5.60	1.0000	5.60	_____
Cstm Haul Wheat	bu	0.21	52.2000	10.96	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.1346	1.34	_____
Harvesters	hour	9.92	0.1021	1.01	_____
HAND LABOR					
Implements	hour	8.60	0.0942	0.81	_____
DIESEL FUEL					
Tractors	gal	1.73	1.1031	1.91	_____
Harvesters	gal	1.73	1.2617	2.18	_____
REPAIR & MAINTENANCE					
Implements	acre	2.59	1.0000	2.59	_____
Tractors	acre	0.41	1.0000	0.41	_____
Harvesters	acre	1.76	1.0000	1.76	_____
INTEREST ON OP. CAP.	acre	3.86	1.0000	3.86	_____
TOTAL DIRECT EXPENSES				152.72	_____
FIXED EXPENSES					
Implements	acre	6.36	1.0000	6.36	_____
Tractors	acre	2.88	1.0000	2.88	_____
Harvesters	acre	7.77	1.0000	7.77	_____
TOTAL FIXED EXPENSES				20.95	_____
TOTAL SPECIFIED EXPENSES				173.67	_____

Table 7.B Estimated resource use and costs for field operations, per acre
 Lonoke County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----Dollars-----				Dollars		-----Dollars-----				
Disk Harrow	32'	MFWD 300	0.061	1.00	Oct	0.31	2.24	0.55	1.33							4.43
Field Cultivate	32'	MFWD 300	0.046	1.00	Oct	0.24	1.70	0.31	1.50							3.75
Grain Drill	20'	2WD 170	0.094	1.00	Oct	1.70	1.94	1.12	2.45	0.18	1.75					8.96
Wheat Seed Private	1b											126.0000	0.27	34.02		34.02
Ditcher (1m/160a)		MFWD 105	0.009	1.00	Oct	0.11	0.11	0.02	0.02	0.00	0.09					0.35
Cstm Ap Air Fert (b)	1b			1.00	Nov							105.0000	0.05	5.78		5.78
0-20-30	1b											105.0000	0.11	11.97		11.97
Cstm Ap Air Fert (b)	1b			1.00	Feb							100.0000	0.05	5.50		5.50
Urea, Solid (46% N)	1b											100.0000	0.15	15.00		15.00
Cstm Ap Air Fert (b)	1b			1.00	Feb							100.0000	0.05	5.50		5.50
Urea, Solid (46% N)	1b											100.0000	0.15	15.00		15.00
Cstm Ap Air Fert (b)	1b			1.00	Mar							100.0000	0.05	5.50		5.50
Urea, Solid (46% N)	1b											100.0000	0.15	15.00		15.00
Cstm Ap Air Insect	acre			1.00	Apr							1.0000	5.60	5.60		5.60
Karate Z	oz											1.8300	2.76	5.07		5.07
Penetrator Plus	oz											8.0000	0.17	1.40		1.40
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01					14.00
Cstm Haul Wheat	bu											52.2000	0.21	10.96		10.96
Wheat Grain Cart	850 bu	MFWD 190	0.031	1.00	Jun	0.51	0.83	0.12	0.25	0.03	0.31					2.02
TOTALS						6.81	14.59	2.59	6.36	0.33	3.16				136.30	169.81
INTEREST ON OPERATING CAPITAL																3.86
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																173.67

Table 8.A Estimated costs per acre
 Phillips County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Urea - (46% N)	lb	0.16	225.0000	36.00	_____
Amm Sulfate (21% N)	lb	0.17	50.0000	8.50	_____
Potash (0-0-60)	lb	0.40	150.0000	60.75	_____
HERBICIDES					
Harmony Extra XP	oz	14.65	0.6000	8.79	_____
CROP SEED					
Wheat Seed Private	lb	0.27	150.0000	40.50	_____
CUSTOM HIRE					
Cstm Ap Air Fert	lb	0.06	150.0000	9.38	_____
Cstm Ap Grd Fert	acre	5.00	2.0000	10.00	_____
Cstm Ap Grd. Herb	acre	5.00	1.0000	5.00	_____
Cstm Haul Wheat	bu	0.21	52.0000	10.92	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2109	2.10	_____
Harvesters	hour	9.92	0.1161	1.15	_____
HAND LABOR					
Implements	hour	8.60	0.0785	0.68	_____
DIESEL FUEL					
Tractors	gal	1.73	2.4429	4.23	_____
Harvesters	gal	1.73	1.4338	2.48	_____
REPAIR & MAINTENANCE					
Implements	acre	2.44	1.0000	2.44	_____
Tractors	acre	0.84	1.0000	0.84	_____
Harvesters	acre	2.00	1.0000	2.00	_____
INTEREST ON OP. CAP.	acre	4.91	1.0000	4.91	_____

TOTAL DIRECT EXPENSES				210.67	_____
FIXED EXPENSES					
Implements	acre	5.96	1.0000	5.96	_____
Tractors	acre	6.01	1.0000	6.01	_____
Harvesters	acre	8.82	1.0000	8.82	_____

TOTAL FIXED EXPENSES				20.79	_____

TOTAL SPECIFIED EXPENSES				231.46	_____

Table 8.B Estimated resource use and costs for field operations, per acre
 Phillips County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----Dollars-----				Dollars		-----Dollars-----				
Disk Harrow	28'	MFWD 225	0.070	1.00	Nov	1.69	2.00	0.57	1.38	0.07	0.70				6.34	
Field Cultivate	24'	MFWD 225	0.062	1.00	Nov	1.50	1.77	0.28	1.34	0.06	0.62				5.51	
Grain Drill	24'	MFWD 225	0.078	1.00	Nov	1.88	2.24	1.06	2.33	0.15	1.46				8.97	
Wheat Seed Private	lb											150.0000	0.27	40.50	40.50	
Cstm Ap Air Fert	lb			1.00	Feb							150.0000	0.06	9.38	9.38	
Urea - (46% N)	lb											100.0000	0.16	16.00	16.00	
Amm Sulfate (21% N)	lb											50.0000	0.17	8.50	8.50	
Cstm Ap Grd Fert	acre			1.00	Feb							1.0000	5.00	5.00	5.00	
Potash (0-0-60)	lb											150.0000	0.40	60.75	60.75	
Cstm Ap Grd Fert	acre			1.00	Mar							1.0000	5.00	5.00	5.00	
Urea - (46% N)	lb											125.0000	0.16	20.00	20.00	
Cstm Ap Grd. Herb	acre			1.00	Mar							1.0000	5.00	5.00	5.00	
Harmony Extra XP	oz											0.6000	14.65	8.79	8.79	
Header Wheat/Sorghum	22' Rigid	240hp	0.116	1.00	Jun	4.48	8.82	0.53	0.91	0.11	1.15				15.89	
Cstm Haul Wheat	bu											52.0000	0.21	10.92	10.92	
						9.55	14.83	2.44	5.96	0.40	3.93					
TOTALS															189.84	226.55
INTEREST ON OPERATING CAPITAL																4.91
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																231.46

Table 9.A Estimated costs per acre
Pope County 2008-09 Wheat Research Verification
University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Amm Sulfate (Pope)	lb	0.11	120.0000	13.20	_____
Urea - (46% N)	lb	0.16	200.0000	32.00	_____
HERBICIDES					
Osprey 4.5 DF	oz	3.42	4.7500	16.25	_____
CROP SEED					
Wheat Seed Saved	lb	0.15	165.0000	26.12	_____
CUSTOM HIRE					
Cstm Pltry Litter	sp ton	15.00	2.5000	37.50	_____
Cstm Haul Wheat	bu	0.21	27.1400	5.70	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.1005	0.99	_____
Harvesters	hour	9.92	0.1021	1.01	_____
Self-Propelled	hour	9.92	0.0419	0.42	_____
HAND LABOR					
Implements	hour	8.60	0.0538	0.46	_____
Self-Propelled	hour	8.60	0.0209	0.17	_____
DIESEL FUEL					
Tractors	gal	1.73	1.1643	2.01	_____
Harvesters	gal	1.73	1.2617	2.18	_____
Self-Propelled	gal	1.73	0.5876	1.01	_____
REPAIR & MAINTENANCE					
Implements	acre	1.97	1.0000	1.97	_____
Tractors	acre	0.41	1.0000	0.41	_____
Harvesters	acre	1.76	1.0000	1.76	_____
Self-Propelled	acre	0.47	1.0000	0.47	_____
INTEREST ON OP. CAP.	acre	3.95	1.0000	3.95	_____

TOTAL DIRECT EXPENSES				147.58	_____
FIXED EXPENSES					
Implements	acre	4.93	1.0000	4.93	_____
Tractors	acre	2.86	1.0000	2.86	_____
Harvesters	acre	7.77	1.0000	7.77	_____
Self-Propelled	acre	3.43	1.0000	3.43	_____

TOTAL FIXED EXPENSES				18.99	_____

TOTAL SPECIFIED EXPENSES				166.57	_____

Table 9.B Estimated resource use and costs for field operations, per acre
 Pope County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Cstm Pltry Litter sp ton				1.00	Nov							2.5000	15.00	37.50	37.50
Field Cultivate	32'	MFWD 225	0.046	1.00	Nov	1.12	1.33	0.31	1.50	0.04	0.46				4.72
Grain Drill	35'	MFWD 225	0.053	1.00	Nov	1.30	1.53	1.19	2.62	0.10	0.99				7.63
Wheat Seed Saved	lb											165.0000	0.15	26.12	26.12
Dry Applicator SP		70'300cuft	0.015	1.00	Jan	0.59	1.37			0.02	0.21				2.17
Amm Sulfate (Pope)	lb											120.0000	0.11	13.20	13.20
Sprayer(600-825Gal)		90'	0.011	1.00	Feb	0.30	0.69			0.01	0.17				1.16
Osprey 4.5 DF	oz											4.7500	3.42	16.25	16.25
Dry Applicator SP		70'300cuft	0.015	1.00	Mar	0.59	1.37			0.02	0.21				2.17
Urea - (46% N)	lb											200.0000	0.16	32.00	32.00
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											27.1400	0.21	5.70	5.70
TOTALS						7.84	14.06	1.97	4.93	0.31	3.05			130.77	162.62
INTEREST ON OPERATING CAPITAL															3.95
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															166.57

Table 10.A Estimated costs per acre
 St. Francis County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		Dollars		Dollars	
DIRECT EXPENSES					
FERTILIZERS					
Urea, Solid (46% N)	lb	0.15	230.0000	34.50	_____
18-46-0	lb	0.22	100.0000	22.50	_____
HERBICIDES					
Axial	oz	0.84	16.4000	13.78	_____
CROP SEED					
Wheat Seed Private	lb	0.27	210.0000	56.70	_____
CUSTOM HIRE					
Cstm Ap Air Herb	acre	6.00	1.0000	6.00	_____
Cstm Ap Air Fert	lb	0.06	330.0000	20.63	_____
Cstm Haul Wheat	bu	0.21	39.9000	8.38	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.2997	2.98	_____
Harvesters	hour	9.92	0.1021	1.01	_____
Self-Propelled	hour	9.92	0.0151	0.15	_____
HAND LABOR					
Self-Propelled	hour	8.60	0.0075	0.06	_____
DIESEL FUEL					
Tractors	gal	1.73	4.6279	8.01	_____
Harvesters	gal	1.73	1.2617	2.18	_____
Self-Propelled	gal	1.73	0.2333	0.40	_____
REPAIR & MAINTENANCE					
Implements	acre	2.49	1.0000	2.49	_____
Tractors	acre	1.44	1.0000	1.44	_____
Harvesters	acre	1.76	1.0000	1.76	_____
Self-Propelled	acre	0.19	1.0000	0.19	_____
INTEREST ON OP. CAP.	acre	4.48	1.0000	4.48	_____

TOTAL DIRECT EXPENSES				187.64	_____
FIXED EXPENSES					
Implements	acre	7.00	1.0000	7.00	_____
Tractors	acre	10.22	1.0000	10.22	_____
Harvesters	acre	7.77	1.0000	7.77	_____
Self-Propelled	acre	1.37	1.0000	1.37	_____

TOTAL FIXED EXPENSES				26.36	_____

TOTAL SPECIFIED EXPENSES				214.00	_____

Table 10.B Estimated resource use and costs for field operations, per acre
 St. Francis County 2008-09 Wheat Research Verification
 University of Arkansas, 2009.

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----Dollars-----				Dollars		-----Dollars-----			
Disk Harrow	28'	4WD 300	0.070	2.00	Nov	4.42	4.79	1.15	2.76	0.14	1.39				14.51
Field Cultivate	32'	4WD 300	0.046	2.00	Nov	2.94	3.18	0.62	2.99	0.09	0.93				10.66
Dry Applicator SP		70'300cuft	0.015	1.00	Nov	0.59	1.37			0.02	0.21				2.17
Wheat Seed Private	lb											210.0000	0.27	56.70	56.70
Harrow	47'	4WD 300	0.033	2.00	Nov	2.09	2.25	0.25	0.44	0.06	0.66				5.69
Cstm Ap Air Herb	acre			1.00	Mar							1.0000	6.00	6.00	6.00
Axial	oz											16.4000	0.84	13.78	13.78
Cstm Ap Air Fert	lb			1.00	Mar							200.0000	0.06	12.50	12.50
Urea, Solid (46% N)	lb											100.0000	0.15	15.00	15.00
18-46-0	lb											100.0000	0.22	22.50	22.50
Cstm Ap Air Fert	lb			1.00	Mar							130.0000	0.06	8.13	8.13
Urea, Solid (46% N)	lb											130.0000	0.15	19.50	19.50
Header Wheat/Sorghum	25' Rigid	240hp	0.102	1.00	Jun	3.94	7.77	0.47	0.81	0.10	1.01				14.00
Cstm Haul Wheat	bu											39.9000	0.21	8.38	8.38
TOTALS						13.98	19.36	2.49	7.00	0.42	4.20			162.49	209.52
INTEREST ON OPERATING CAPITAL															4.48
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															214.00