



# 2013

## University of Arkansas

### Soybean 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

# Arkansas ROW CROP VERIFICATION



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## **SOYBEAN RESEARCH VERIFICATION PROGRAM, 2013**

Conducted by:

Chris Grimes, Program Associate  
Dr. Jeremy Ross, Extension Agronomist – Soybean  
Dr. Bob Stark, Professor – Agricultural Economics

### **Acknowledgments:**

#### Cooperating Soybean Producers:

Mike Wright	Josh & Terry Hatley	Jason Glisson
Doug Threlkeld	Jeffery Reidhar	Craig & Darrell Walker
Tony Wilkie	Randal & Mark Coleman	Smack Farms
Robert Johnson	Chuck Stephens	Horner Planting Co.
Sidney Norwood	Pfaffenberger Farms	

#### Cooperating County Extension Agents:

Chuck Capps – Arkansas County	Herb Ginn – Lawrence County
Rick Wimberley – Cross County	Ron Baker – Clay County
David Carwell – St. Francis County	Mike Andrews – Randolph County
Gus Wilson – Chicot County	Robert Goodson – Phillips County
James Mayhan – Arkansas County	Wes Kirkpatrick – Desha County
Steve Kelley – Drew County	Michael Paskewitz – Prairie County
Brent Griffin – Prairie County	Dave Freeze – Greene County
Crittenden County	

#### Cooperative Extension Service:

Dr. Rick Cartwright, Assoc Director- Ag & Natural Resources  
Dr. Gus Lorenz III, Associate Department Head- Entomology-Lonoke  
Dr. Glenn Studebaker, Extension Entomologist – NEREC  
Dr. Travis Faske, Assistant Professor – Extension Plant Pathologist  
Dr. Leo Espinoza, Extension Soil Scientist – Little Rock  
Dr. Bob Scott, Weed Scientist – Lonoke  
Dr. Tom Barber, Weed Scientist – Lonoke  
Mr. Scott Stiles, Instructor, Agriculture Economics - Jonesboro  
Mr. Chris Meux, Extension Design Specialist – Little Rock  
Dr. Martha Ray Sartor, Delta District Director-Little Rock  
Alberta James-Ouachita District Director-Little Rock

Agricultural Experiment Station:

Dr. Robert Bacon, Professor and Dept Head – Crop, Soil & Environmental Science – UAF  
Dr. Richard Roeder, Associate Director, Agriculture Experiment Station - UAF  
Dr. Archie Flanders, Assistant Professor, Agricultural Economics - NEREC  
Dr. Terry Kirkpatrick, Professor/ Nematologist – SWREC  
Dr. Pengyin Chen, Professor/ Soybean Breeding and Genetics - UAF  
Dr. Rick Bennett, Departmental Chairperson, Plant Pathology - UAF  
Dr. Larry Purcell, Professor, Crop, Soil & Environmental Science - UAF  
Dr. J.C. Rupe, Professor, Plant Pathology – UAF  
Dr. Nathan Slaton, Professor, Crop, Soil & Environmental Science – UAF  
Dr. R.T. Robbins, Professor, Plant Pathology – UAF  
Dr. Chris Henry, Assistant Professor, Bio & Agriculture Engineering - RREC

Arkansas Soybean Promotion Board:

Shannon Davis, Craighead, (Chairman)  
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Gary Sitzer, Poinsett, (Secretary/Treasurer)  
Donald Morton, Prairie  
John Freeman, Desha  
Dr. Lanny Ashlock, Faulkner, Project Manager

Joe Thrash, Faulkner  
Jim Carroll, Monroe\*  
Rusty Smith, Prairie\*  
Drew Oliver, Crittenden  
Robert Stobaugh, Pope\*

\* Designates United Soybean Board of Directors

## INTRODUCTION

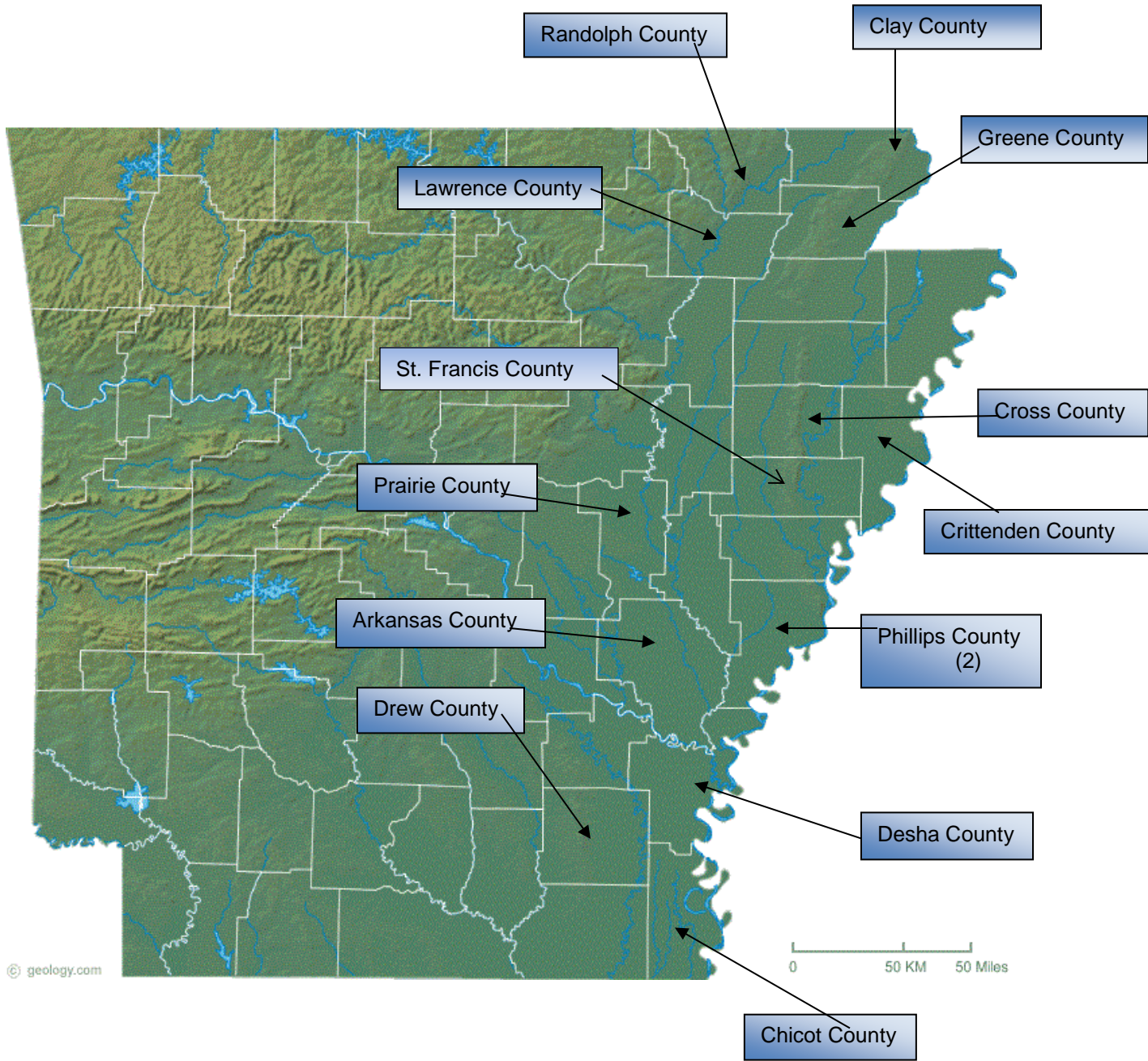
The 2013 growing season was the thirtieth year for the Soybean Research Verification Program (SRVP). The SRVP is an interdisciplinary effort between growers, county Extension agents, Extension specialists, and researchers. The SRVP is an on-farm demonstration of all the research-based recommendations required to grow soybeans profitably in Arkansas. The specific objectives of the program are:

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

Each SRVP field and cooperator was 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. Sixteen growers were enrolled in the SRVP in 2013. The fields were located on commercial farms ranging in size from 20 to 120 acres. The average field size was 56 acres.

The 2013 SRVP fields were conducted in Arkansas, Chicot, Clay, Crittenden, Cross, Desha, Drew, Greene, Lawrence, Phillips (2), Prairie, Randolph and St. Francis Counties. Nine different roundup ready varieties (Armor 48R40, Armor 47R44, Armor 44R08, AgVenture 46B3, Asgrow 4632, Asgrow DK 4866, Pioneer 94Y70, Pioneer 95Y01 Progeny 4710), one liberty link variety (Stine 50LC82) and one conventional (UA 4910) were planted. Management decisions were based on field history, soil test results, variety, and data collected from each individual field during the growing season.

**Figure 1. Location of 2013 Soybean Research Verification Fields**



## FIELD REVIEWS

### Northern Fields – Chris Grimes

#### Clay County

The Clay County field was located in Corning. The field was 80 acres and the previous crop was rice. The soil type was Knobel silty clay. 0-45-90 was applied preplant according to soil test recommendations. The field was broadcast seeded on June 24 with Pioneer 94Y70 at 60 pounds per acre. The final plant population was 150,000 plants per acre. The field received two post emergence applications for weed control. 22oz/a of Roundup PowerMax, 24oz/a Ultra Blazer and 16oz/a of Metolachlor was applied on July 6 and 32oz/a of Glyphosate was applied on July 25. Insect and disease pressure remained below treatment levels throughout the growing season. The field was furrow irrigated 6 times. The field was harvested on November 9 and yielded 51 bushels per acre adjusted to 13% moisture.

#### Crittenden County

The Crittenden County field was located south of Tyronza. The field was 73 acres and the previous crop was soybeans. The soil type was Alligator clay. The field was planted May 19 with Armor DK 4744 at 60 pounds per acre on twin row 38" row spacing. The final plant population was 110,000 plants per acre. We applied 48oz/a Gramoxone plus 3.5oz/a Envive for burndown and residual after planting. The field received one post emergence herbicide application for weed control. Roundup PowerMax at 32oz/a plus 16oz/a Ultra Blazer was applied on July 2. Alto was applied on August 15 for Frogeye control. The field was furrow irrigated 3 times. The field was harvested on October 9 and yielded 65 bushels per acre adjusted to 13% moisture.

#### Cross County

The Cross County field was located in Coldwater. The field was 120 acres and the previous crop was soybeans. The soil type was Alligator clay. The field was planted June 24 with Progeny 4710 at 65 pounds per acre on 38" rows. The final plant population was of 169,000 plants per acre. We applied 32oz/a Roundup PowerMax plus 48oz/a Warrant for burndown and residual after planting. 32oz/a Roundup PowerMax plus 24oz/a Storm were applied on July 16 and August 7 for weed control. The field required 3oz/a of Bifenthrin for stink bug control. The field was furrow irrigated 4 times. The field was harvested on October 29 and yielded 58 bushels per acre adjusted to 13% moisture.

#### Greene County

The Greene County field was located in south of Paragould. The field was 27 acres and the previous crop was corn. The soil type was Calaway silt loam. A 0-0-60 preplant fertilize was custom applied according to soil test recommendation. The field was planted on June 8 with Asgrow 4632 at 60 pounds per acre with 30 inch row spacing. The final plant population was 139,000 plants per acre. On May 31 the producer applied 40oz/a Touchdown for burndown. On June 28 we applied 22oz/a Roundup PowerMax plus 32oz/a Prefix for weed control and residual. Aerial Web Blight and stinkbugs was present and required treatment. The field was furrow irrigated 7 times. The field was harvested on October 28 and yielded 68 bushels per acre adjusted to 13% moisture.



## **Lawrence County**

The Lawrence County field was located northwest of Hoxie. The field was 38 acres and the previous crop was peanuts. The soil type was Patterson fine sandy loam. A 0-40-60 plus 1 ton/a chicken litter was applied preplant. The field was planted on June 7 with Armor 48R40 and planted about 58 pounds per acre on 7.5 rows on 60" beds. The final plant population was 102,000 plants per acre. 48oz/a Gramoxone was applied for burndown and 28oz/a Roundup PowerMax plus 21oz/a Metolachlor was applied after planting. The field received two post emergence applications for weed control. 28oz/a of Roundup PowerMax plus 24oz/a Ultra Blazer was applied on June 22 and 36oz/a of Roundup PowerMax on July 17. The field required an application of Stratego YLD for frogeye leafspot control and Lambda Cy was applied for stinkbugs. Furrow irrigated 6 times. The field was harvested on November 14 and yielded 62 bushels per acre adjusted to 13% moisture.

## **Prairie County**

The Prairie County field was located east of Des Arc. The field was 90 acres and the previous crop was corn. The soil type was a Kobel silty clay loam. The field was disked in the fall and a bedder/roller was used in the spring. 0-40-60 fertilize was applied preplant according to soil sample results. The field was planted on June 12 with Pioneer 95Y01 at 63 pounds per acre on 15 inch row spacing. The final plant population was 105,000 plants per acre. On July 10 the producer applied 32oz/a Roundup PowerMax plus 16oz/a Ultra Blazer was applied post for weed control. Insect and disease pressure remained below treatment levels throughout the growing season. The field was furrow irrigated 7 times. Field was harvested on October 23 and yielded 64 bushels per acre adjusted to 13% moisture.

## **Randolph County**

The Randolph County was located north of Reyno. The field was 33 acres and the previous crop was corn. The soil type was Dundee silt loam. According to soil test a 0-60-120 was applied preplant. The field was planted on June 19 with Pio 94Y70 at 60 pounds per acre on 30 inch row spacing. The final plant stand was 110,000 plants per acre. On July 3 the producer applied 32oz/a Roundup PowerMax plus 0.2oz/a Firstrate for weed control. The field required no insecticide or fungicide applications. The field was furrow irrigated 3 times. Field was harvested on November 2 and yielded 55 bushels per acre adjusted to 13% moisture.

## **St. Francis County**

The St. Francis County field was located east of Heath. It was 38 acres and the previous crop was grain sorghum. The soil type was Alligator/Sharkey clay. According to soil test results no preplant fertilize was needed. The field was planted on May 27 with Stine 50LC82 at 56 pounds per acre on 19" row spacing. The final plant stand was 165,000 plants per acre. Valor was applied at 2oz/a prior to planting for residual and 36oz/a Liberty plus 32oz/a Prefix was applied post. No insecticide or fungicide applications were required. The field was center pivot irrigated 5 times and was harvested October 14 and yielded 65 bushels per acre adjusted to 13% moisture.

## **Southern Fields**

### **Arkansas County**

The Roundup Ready variety, Armor 44R08, was planted at a rate of 60 lbs/ac on June 17 following a previous rice corn. The soil type was a DeWitt/Stuttgart silt loam, and field size was 51 acres. The planting system was 60 inch beds with 30 inch single rows. Pre-plant fertilizer was applied at a rate of 0-54-108. Final plant population was 137,000 plants per acre. Roundup PowerMax plus Prefix was applied for weed control and residual. Insect and disease pressure was not a problem in this field. The field was furrow irrigated five times. 66 bu/ac was harvested on October 17.

### **Chicot County**

The Roundup Ready variety, Ag Venture 46B3, was planted at a rate of 56 lbs/ac on April 30 following a previous crop of soybean. The soil type consisted of Sharkey clay, and the field size was 71 acres. The planting system was twin rows on 38 inch beds. No pre-plant fertilizer was applied because soil test levels were optimum. Final plant population was 135,000 plants per acre. Roundup Power Max, 2,4-D and Lead-Off was applied for burndown followed by Roundup Power Max plus AMS. Acephate plus Brigade was applied for stinkbug control and no fungicide was warranted. The field was furrow irrigated 7 times. The field was harvested on September 8 with a final yield of 79 bu/ac.

### **Desha County**

The Roundup Ready variety, Armor DK 4744, was planted at a rate of 58 lbs/ac on April 27 following a previous crop of soybean. The soil type was Alligator clay, and the field size was 92 acres. The planting system was single rows on 38 inch beds. No preplant fertilize was required. Final plant population was 145,000 plants per acre. Roundup PowerMax plus 2,4-D was applied for burndown, and an application of Roundup PowerMax plus Dual Magnum was applied for post and residual weed control. A second application of Roundup PowerMax plus Ultra Blazer was applied for post weed control. A layby application of Flexstar and Dual Magnum was applied on 6/21. The field required 1 insecticide application for stinkbug control. The field was furrow irrigated 9 times. The field was harvested on September 12 with a final yield of 74 bu/ac.

### **Drew County**

The Roundup Ready variety AG/DK 4866 STS, was planted at a rate of 55 lbs/ac on May 14 following a previous corn crop. The soil type was Rilla & Portland silt loam, and the field size was 31 acres. The planting system was single row on 38" beds. No pre-plant fertilizer was required. Final plant population was 130,000 plants per acre. Roundup Power Max was applied as a burndown, and was followed by an application of glyphosate plus metolachlor after planting. The field was sprayed with Roundup Power Max, Avalanche Ultra and Charger Plus for weed control. No fungicide was warranted, but an insecticide was applied for stinkbug control. The field was furrow irrigated 8 times. The field was harvested on September 25 with a final yield of 74 bu/ac.

### **Phillips County-1**

The Roundup Ready variety, Asgrow 4632, was planted at a rate of 60 lbs/ac on June 5 following a previous soybean crop. The soil type was Foley silt loam, and the field size 20 acres. 60 inch beds were pulled and then drilled. Pre-plant fertilizer was applied at a rate of 0-0-50. Final plant population was 120,000 plants per acre. Treflan was applied pre-plant incorporated, and Valor was applied pre following planting. Glyphosate and Dual Magnum were applied as a post treatment. No fungicide or insecticide applications were warranted. The field was furrow irrigated 5 times. 53 bu/ac was harvested on October 10.

### **Phillips County-2**

The conventional variety, UA4910, was planted at a rate of 60 lbs/ac on May 29 following a previous soybean crop. The soil type was Jeanerette silt loam, and the field size was 24 acres. 60 inch beds were pulled and then drilled. Pre-plant fertilizer was applied at a rate of 0-0-60. Final plant population was 125,000 plants per acre. Treflan was applied pre-plant incorporated, and Valor was applied pre following planting. Flexstar was applied as a post treatment. No fungicide or insecticide applications were needed. The field was furrow irrigated 9 times. 53 bu/ac was harvested on October 23.

**Table 1. Agronomic information for the 2013 Soybean Research Verification Fields.**

County	Variety	Field size (ac)	Previous crop	Production system	Seeding rate (lb/acre)	Stand density (plants/ac)	Planting date	Emergence date	Harvest date	Yield adj. to 13% moisture (bu/ac)
Arkansas	Armor 44R08	51	Corn	FSI	60	137 K	6/17	6/24	10/17	66
Chicot	AG Venture 46B3	71	Soybean	ESI	56	135K	4/30	5/7	9/8	79
Clay	PIO 94Y70	80	Rice	FSI	60	150K	6/24	6/30	11/9	51
Crittenden	Armor DK 4744	73	Soybean	FSI	60	110K	5/19	5/26	10/9	65
Cross	PRG 4710	120	Soybean	FSI	65	169K	6/24	7/1	10/29	58
Desha	Armor DK 4744	92	Soybean	ESI	58	145K	4/27	5/7	9/12	74
Drew	Asgrow DK 4866 STS	31	Corn	FSI	55	130K	5/14	5/23	9/25	74
Greene	Asgrow 4632	27	Corn	FSI	60	139K	6/8	6/13	10/28	68
Lawrence	Armor 48R40	38	Peanuts	FSI	58	102K	6/7	6/15	11/14	62
Phillips-1	Asgrow 4632	20	Soybean	FSI	60	120K	6/5	6/13	10/10	53
Phillips-2	UA 4910	22	Soybean	FSI	60	125K	5/29	6/7	10/23	53
Prairie	PIO 95Y01	90	Corn	FSI	63	105K	6/12	6/18	10/23	64
Randolph	PIO 94Y70	33	Corn	FSI	60	110K	6/19	6/27	11/2	55
St. Francis	Stine 50LC82	38	Grain Sorghum	FSI	56	165K	5/27	6/4	10/14	65
<b>Average</b>		56			59	132K	6/1	6/8	10/16	63

State Avg. – 43.5bu/ac

**Table 2. Soil tests results, applied fertilize and soil classification for the 2013 Soybean Research Verification Fields**

County	Soil Test (lb/acre)				Applied Fertilize N-P-K (lb/acre)	Soil Classification
	pH	P	K	Zn	Pre-plant	
Arkansas	-	-	-	-	0-54-108	Dewitt/Stuttgart silt loam
Chicot	5.6	88	329	2.5	0-0-0	Sharkey clay
Clay	6.6	40	180	35	0-45-90	Kobel silty clay
Crittenden	6.5	82	284	2.6	0-0-60	Alligator clay
Cross	6.9	54	642	7.6	0-0-0	Alligator clay
Desha	7.2	96	540	7.1	0-0-0	Alligator clay
Drew	6.6	64	390	7.2	0-0-0	Rilla & Portland silt loam
Greene	5.8	78	226	8.2	0-0-60	Calloway silt loam
Lawrence	6.5	44	132	7.4	0-40-60 Plus 1T/a Chicken Litter	Patterson fine sandy loam
Phillips-1	7.1	64	166	7.4	0-0-50	Foley silt loam
Phillips-2	7.7	44	178	7.4	0-0-60	Jeanerette silt loam
Prairie	5.8	68	269	20	0-40-60	Kobel silty clay loam
Randolph	6.5	54	153	11.3	0-60-120	Dundee silt loam
St. Francis	6.6	143	360	9.8	0-0-0	Alligator/Sharkey clay

**Table 3. Herbicide rates and timings for 2013 Soybean Research Verification Program fields by county.**

County	Herbicide	
	Burndown/Pre-emergence	Post-emergence
Arkansas	-----	22oz/a Roundup PowerMax plus 32oz/a Prefix
Chicot	22oz/a Roundup PowrMax plus 24oz/a 2,4-D plus 1.5oz/a Lead-Off	22oz/a Roundup PowerMax plus 12.6oz/a AMS
Clay	16oz/a Metolachlor	1 <sup>st</sup> :22oz/a Roundup PowerMax plus 24oz/a Ultra Blazer 2 <sup>nd</sup> :32oz/a Roundup PowerMax
Crittenden	48oz/a Gramoxone plus 3.5oz/a Envive	32oz/a Roundup PowerMax plus 16oz/a Ultra Blazer
Cross	32oz/a Roundup PowerMax plus 48oz/a Warrant	1 <sup>st</sup> :32oz/a Roundup PowerMax plus 24oz/a Storm 2 <sup>nd</sup> :32oz/a Roundup PowerMax plus 24oz/a Storm
Desha	22oz/a Roundup PowerMax plus 24oz/a 2,4-D	1 <sup>st</sup> :22oz/a Roundup PowerMax plus 16oz/a Dual Magnum 2 <sup>nd</sup> :22oz/a Roundup PowerMax plus 24oz/a Ultra Blazer 3 <sup>rd</sup> : 16oz/a Flexstar plus 16oz/a Dual Magnum
Drew	22oz/a Roundup PowerMax plus 16oz/a Metolachlor	1 <sup>st</sup> :21oz/a Roundup PowerMax plus 21oz/a Avalanche Ultra plus 16oz/a Charger Plus 2 <sup>nd</sup> : 16oz/a Avalanche Ultra
Greene	40oz/a Touchdown	22oz/a Roundup PowerMax plus 32oz/a Prefix
Lawrence	1 <sup>st</sup> :48oz/a Gramoxone 2 <sup>nd</sup> :28oz/a Roundup PowerMax plus 21oz/a Metolachlor	1 <sup>st</sup> :28oz/a Roundup PowerMax plus 24oz/a Ultra Blazer 2 <sup>nd</sup> :36oz/a Roundup PowerMax
Phillips-1	1 <sup>st</sup> :32oz/a Treflan 2 <sup>nd</sup> :2oz/a Valor	32oz/a Glyphosate plus 16oz/a Dual Magnum
Phillips-2	1 <sup>st</sup> :32oz/a Treflan 2 <sup>nd</sup> :2oz/a Valor	16oz/a Flexstar
Prairie	-----	32oz/a Roundup PowerMax plus 16oz/a Ultra Blazer
Randolph	-----	32oz/a Roundup PowerMax plus 0.2oz/a Firstrate
St.Francis	2oz/a Valor	36oz/a Liberty plus 32oz/a Prefix

**Table 4. Fungicide and insecticides applications in 2013  
Soybean Research Verification fields by county.**

County	Aerial Web Blight	Frogeye	Bollworm/Defoliators	Stink Bug
Arkansas	-----	-----	-----	-----
Chicot	-----	-----	6 oz/a Intrepid	1 <sup>st</sup> :0.5#/a Acephate plus 4.26oz/a Brigade 2 <sup>nd</sup> : 4.26oz/a Brigade
Clay	-----	-----	-----	-----
Crittenden	-----	5.5oz/a Alto	-----	-----
Cross	-----	-----	-----	3oz/a Bifenthrin
Desha	-----	-----	-----	4.3oz/a Brigade
Drew	-----	-----	-----	4.3oz/a Brigade plus .5#/a Acephate
Greene	10oz/a Quadris Top	-----	-----	3.66oz/a Brigade
Lawrence	-----	4.65oz/a Stratego YLD	-----	3.65oz/a Lambda Cy
Phillips-1	-----	-----	-----	-----
Phillips-2	-----	-----	-----	-----
Prairie	-----	-----	-----	-----
Randolph	-----	-----	-----	-----
St. Francis	-----	-----	-----	-----

<b>Table 5. Irrigation information and rainfall for the 2013 Soybean Research Verification Fields.</b>			
County	Irrigation Type	Number of Irrigations	Rainfall (in)
Arkansas	Furrow	5	7
Chicot	Furrow	7	7
Clay	Furrow	6	18
Crittenden	Furrow	3	16
Cross	Furrow	4	10
Desha	Furrow	9	7
Drew	Furrow	8	5
Greene	Furrow	7	9
Lawrence	Furrow	6	7
Phillips-1	Furrow	5	7
Phillips-2	Furrow	9	5
Prairie	Furrow	7	7.25
Randolph	Furrow	3	8
St. Francis	Center Pivot	5	9



## ECONOMIC ANALYSIS

This section provides information on production costs and returns for the 2013 SRVP. Records of field operations on each field provided the basis for estimating production costs. The field records were compiled by the SRVP coordinator, county extension agents, and cooperators. Production data from the 14 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 costs 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 2013 Crop Enterprise Budgets published by the Cooperative Extension Service and information provided by the producer cooperators. 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, 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. Averages in the final row of Table 6 are simple averages across all SRVP fields. Operating costs per acre range from \$207.17/acre for St. Francis County to \$387.89/acre for Lawrence County, while operating costs per bushel range from \$3.06/bu for Drew County to \$6.26/bu for Lawrence County. Total costs per acre (operating plus fixed) range from \$266.34/acre for St. Francis County to \$447.56/acre for Lawrence County, and total costs per bushel range from \$3.74/bu for Drew County to \$7.23/bu for Clay County. Returns above operating costs range from \$346.05/acre for Clay County to \$752.48/acre for Chicot County, and returns above total costs range from \$280.40 for Clay County to \$695.30/acre for Chicot County.

A summary of yield, soybean price, revenues, and expenses by expense type for each SRVP field is presented in Table 7. Averages in final column of Table 7 are simple averages across all SRVP fields. The average soybean yield for the 2013 SRVP was 63.36 bushels, but ranged from 51.0 bushels/acre for Clay County to 79.0 bushels/acre in Chicot County. The Arkansas average cash price for the 2013 SRVP was estimated from January through October 31 daily price quotes of the cash market price or cash booking price to be \$12.73/bu. Arkansas producers set the price for portions of their crop throughout the year. The Little Rock office of the National Agriculture Statistics Service began reporting 2013 Arkansas crop booking prices on January 2 and would normally have switched to cash market quotes for the 2013 crop on October 1. The Federal government shutdown led to omission of October 1-16 price quotes. A simple average of the September 30 and October 17 prices was used in the twelve missing days to compensate for the missing daily market price quotes.

The average operating expense for the 14 SRVP fields was \$271.13/acre (Table 7). Seed accounted for the largest share of operating expenses on average (25.54 percent) followed by irrigation energy costs (14.89 percent), herbicides (14.35 percent), fertilizers & nutrients (12.64 percent), and diesel fuel (7.88 percent). The average return above operating expenses for the 14 fields was \$535.41/acre and ranged from \$346.05/acre for Clay County to 752.48/acre for Chicot County. The average return above total specified expenses for the 14 fields was \$480.46/acre, and ranged from \$280.40 for Clay County to \$695.30/acre for Chicot County.

**Table 6. Operating Costs, Total Costs, and Returns for Soybean Research Verification Program, 2013**

County	Operating Costs (\$/acre)	Operating Costs (\$/bushel)	Returns to Operating (\$/acre)	Fixed Costs (\$/bushel)	Total Costs (\$/acre)	Returns to Total Costs (\$/acre)	Total Costs per Bushel (\$/bushel)
Arkansas	299.21	4.53	540.97	52.96	352.17	488.01	5.34
Chicot	253.19	3.20	752.48	57.19	310.37	695.30	3.93
Clay	303.18	5.94	346.05	65.65	368.83	280.40	7.23
Crittenden	261.85	4.03	565.60	48.63	310.48	516.97	4.78
Cross	237.93	4.10	500.41	40.47	278.40	459.94	4.80
Desha	319.64	4.32	622.38	57.95	377.59	564.43	5.10
Drew	226.65	3.06	715.37	50.08	276.73	665.29	3.74
Greene	304.47	4.48	561.17	58.43	362.90	502.74	5.34
Lawrence	387.89	6.26	401.37	59.67	447.56	341.70	7.22
Phillips-1	219.28	4.14	455.41	52.92	272.20	402.49	5.14
Phillips-2	221.75	4.18	452.94	60.49	282.24	392.45	5.33
Prairie	275.62	4.31	539.10	53.67	329.29	485.43	5.15
Randolph	277.93	5.05	422.22	52.10	330.04	370.11	6.00
St. Francis	207.17	3.19	620.28	59.16	266.34	561.11	4.10
<b>Simple Average</b>	<b>271.13</b>	<b>4.34</b>	<b>535.41</b>	<b>54.96</b>	<b>326.08</b>	<b>480.46</b>	<b>5.23</b>

**Table 7. Summary of Revenue and Expenses per Acre, Soybean Research Verification Program, 2012** <sup>(1)</sup>

	Arkansas	Chicot	Clay	Crittenden	Cross	Desha	Drew	Greene	Lawrence
<b>Receipts</b>									
Yield (bu.)	66.0	79.0	51.0	65.0	58.0	74.0	74.0	68.0	62.0
Price	12.73	12.73	12.73	12.73	12.73	12.73	12.73	12.73	12.73
<b>Total Crop Revenue</b>	<b>840.18</b>	<b>1005.67</b>	<b>649.23</b>	<b>827.45</b>	<b>738.34</b>	<b>942.02</b>	<b>942.02</b>	<b>865.64</b>	<b>789.26</b>
Seed	72.00	67.20	72.00	72.00	78.00	69.60	66.00	72.00	69.60
Fertilizers & Nutrients	86.40	0.00	72.00	0.00	0.00	0.00	0.00	28.80	89.40
Herbicides <sup>(2)</sup>	17.64	20.93	29.33	76.59	61.92	75.47	44.46	24.50	49.89
Insecticides <sup>(2)</sup>	0.00	11.07	0.00	0.00	2.34	3.91	7.23	3.33	11.50
Other Chemicals <sup>(2)</sup>	0.00	0.79	0.00	6.60	0.00	0.00	0.00	24.70	21.39
Custom Applications	12.00	21.00	0.00	13.00	26.00	21.00	14.00	20.00	20.00
Diesel Fuel <sup>(3)</sup>	19.90	20.62	27.47	20.71	16.12	20.50	20.71	20.31	22.36
Repairs & Maintenance	15.44	16.23	18.90	15.03	12.17	16.33	14.73	17.10	17.58
Irrigation Energy Costs	42.52	59.53	51.02	25.51	12.65	76.54	25.29	59.53	51.02
Labor, Field Activities	7.46	7.81	10.18	7.63	6.19	8.03	8.02	7.75	8.32
Other Inputs & Fees, Pre-harvest	9.35	8.27	9.52	8.53	8.05	9.76	7.71	9.46	11.32
Post-harvest Expenses	16.50	19.75	12.75	16.25	14.50	18.50	18.50	17.00	15.50
<b>Total Operating Expenses</b>	<b>299.21</b>	<b>253.19</b>	<b>303.18</b>	<b>261.85</b>	<b>237.93</b>	<b>319.64</b>	<b>226.65</b>	<b>304.47</b>	<b>387.89</b>
<b>Returns to Operating Expenses</b>	<b>540.97</b>	<b>752.48</b>	<b>346.05</b>	<b>565.60</b>	<b>500.41</b>	<b>622.38</b>	<b>715.37</b>	<b>561.17</b>	<b>401.37</b>
Capital Recovery & Fixed Costs	52.96	57.19	65.65	48.63	40.47	57.95	50.08	58.43	59.67
<b>Total Specified Expenses<sub>z</sub></b>	<b>352.17</b>	<b>310.37</b>	<b>368.83</b>	<b>310.48</b>	<b>278.40</b>	<b>377.59</b>	<b>276.73</b>	<b>362.90</b>	<b>447.56</b>
<b>Returns to Specified Expenses</b>	<b>488.01</b>	<b>695.30</b>	<b>280.40</b>	<b>516.97</b>	<b>459.94</b>	<b>564.43</b>	<b>665.29</b>	<b>502.74</b>	<b>341.70</b>
Operating Expenses/Yield Unit	4.53	3.20	5.94	4.03	4.10	4.32	3.06	4.48	6.26
Total Expenses/Yield Unit	5.34	3.93	7.23	4.78	4.80	5.10	3.74	5.34	7.22

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

2. Combined as Chemicals in previous year reports

3. Listed as Fuel & Lube in previous year reports

**Table 7 (Continued). Summary of Revenue and Expenses per Acre, Soybean Research Verification Program, 2012 <sup>(1)</sup>**

<b>Receipts</b>	Phillips-1	Phillips-2	<i>Prairie</i>	<i>Randolph</i>	St. Francis	Simple Average
Yield (bu.)	53.0	53.0	64.0	55.0	65.0	63.36
Price	12.73	12.73	12.73	12.73	12.73	12.73
<b>Total Crop Revenue</b>	<b>674.69</b>	<b>674.69</b>	<b>814.72</b>	<b>700.15</b>	<b>827.45</b>	<b>806.54</b>
Seed	72.00	49.80	75.60	72.00	61.60	69.24
Fertilizers & Nutrients	24.00	28.80	54.40	96.00	0.00	34.27
Herbicides <sup>(2)</sup>	35.80	34.90	15.16	13.70	44.58	38.92
Insecticides <sup>(2)</sup>	0.00	0.00	0.00	0.00	0.00	2.81
Other Chemicals <sup>(2)</sup>	0.00	0.00	0.00	0.00	0.00	3.82
Custom Applications	0.00	0.00	6.00	0.00	12.00	11.79
Diesel Fuel <sup>(3)</sup>	24.88	29.07	17.53	23.51	15.60	21.38
Repairs & Maintenance	16.69	18.87	15.68	15.90	15.48	16.15
Irrigation Energy Costs	15.81	28.45	59.53	25.51	32.29	40.37
Labor, Field Activities	9.19	10.89	6.88	8.62	5.17	8.01
Other Inputs & Fees, Pre-harvest	7.66	7.72	8.84	8.94	4.20	8.52
Post-harvest Expenses	13.25	13.25	16.00	13.75	16.25	15.84
<b>Total Operating Expenses</b>	<b>219.28</b>	<b>221.75</b>	<b>275.62</b>	<b>277.93</b>	<b>207.17</b>	<b>271.13</b>
<b>Returns to Operating Expenses</b>	<b>455.41</b>	<b>452.94</b>	<b>539.10</b>	<b>422.22</b>	<b>620.28</b>	<b>535.41</b>
Capital Recovery & Fixed Costs	52.92	60.49	53.67	52.10	59.16	54.96
<b>Total Specified Expenses<sub>z</sub></b>	<b>272.20</b>	<b>282.24</b>	<b>329.29</b>	<b>330.04</b>	<b>266.34</b>	<b>326.08</b>
<b>Returns to Specified Expenses</b>	<b>402.49</b>	<b>392.45</b>	<b>485.43</b>	<b>370.11</b>	<b>561.11</b>	<b>480.46</b>
Operating Expenses/Yield Unit	4.14	4.18	4.31	5.05	3.19	4.34
Total Expenses/Yield Unit	5.14	5.33	5.15	6.00	4.10	5.23

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

2. Combined as Chemicals in previous year reports

3. Listed as Fuel & Lube in previous year reports