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Corn and Grain Sorghum Research Verification Program

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

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CORN & GRAIN SORGHUM RESEARCH VERIFICATION PROGRAM, 2013

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INTRODUCTION

The 2013 growing season was the fourteenth year for the Corn and Grain Sorghum Research Verification Program (CGSRVP). The CGSRVP is an interdisciplinary effort between growers, county Extension agents, Extension specialists, and researchers. The CGSRVP is an on-farm demonstration of all the research-based recommendations required to grow corn and grain sorghum profitably in Arkansas. The specific objectives of the program are:

1. To verify research-based recommendations for profitable corn and grain sorghum production in all corn and grain sorghum producing areas of Arkansas.

2. To develop a database for economic analysis of all aspects of corn and grain sorghum production.

3. To demonstrate that consistently high yields of corn and grain sorghum can be produced economically with the use of available technology and inputs.

4. To identify specific problems and opportunities in Arkansas corn and grain sorghum production for further investigation.

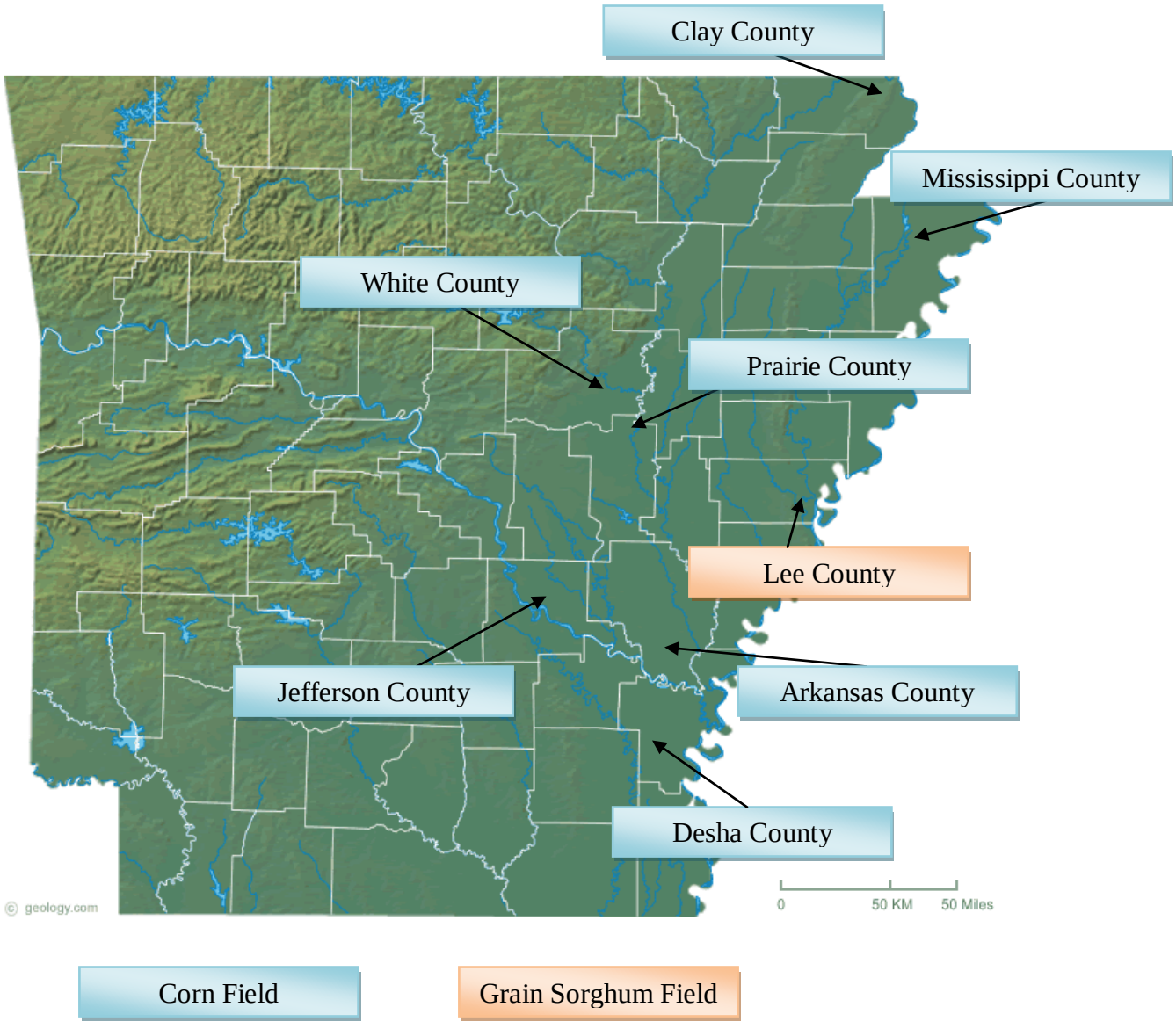
5. To promote timely implementation of cultural and management practices among corn and grain sorghum growers.

6. To provide training and assistance to county agents with limited expertise in corn and grain sorghum production.

Each CGSRVP 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. Eight growers were enrolled in the CGSRVP in the spring of 2013, seven corn and one grain sorghum field. The fields were located on commercial farms ranging in size from 29 to 100 acres for the corn fields with an average field size of 63.3 acres. The grain sorghum field was 50.5 acres.

The 2013 CGSRVP corn fields were in Arkansas, Clay, Desha, Jefferson, Mississippi, Prairie, and White Counties; and the grain sorghum field was in Lee County. Five different corn hybrids (Armor 1550PRO, DeKalb DKC 64-69, DeKalb DKC 66-97, Pioneer P1745HR and Pioneer P2088HR) and one grain sorghum hybrid (Pioneer 84P80) were planted. Management decisions were based on field history, soil test results, hybrids, and data collected from each individual field during the growing season.

Figure 1. Location of 2013 Corn and Grain Sorghum Research Verification Fields



CORN FIELD REVIEWS

Arkansas County

The Arkansas County corn research verification field was located in the south part of the county just southeast of De Witt. The field was 100 acres and the previous crop was corn. The soil type was Dewitt Silt Loam. The field was disked, chisel plowed and then floated. A preplant fertilizer of 76-76-76-0-10 was applied on April 17 and cultivated in. The field was hipped and planted on April 26 with DeKalb DKC 66-97 at 36,000 seeds per acre with a 38 inch twin row planter. The field emerged on May 3 and the final plant stand was 35,300 plants per acre. On May 26, 3.6 pints of Halex GT, 2 quarts of atrazine plus 1 ounce of Permit was custom applied for weed control. 225 pounds of Urea (104 units of N) plus 75 pounds of ammonium sulfate (16 units of N, 18 units of S) was custom applied on May 29. A pretassel application of 100 pounds of Urea (46 units) was applied on June 15. Total fertilizer for this field was 254-76-76-18-10. The field received 7.85 inches of rain from planting to R6 (black layer) and was furrow irrigated 8 times. The field was harvested on September 14 at 14.5% moisture and yielded 222.8 bushels per acre adjusted to 15.5% moisture.

Clay County

The Clay County corn research verification field was located in the northeastern part of the county near Piggott. The field was 91.4 acres and the previous crop was soybeans. The soil type was Fountain Silt Loam. On April 3, a burndown of 16 ounces of Latigo plus 22 ounces of Roundup was applied by the producer. A mixed fertilizer of 80-20-30-0-0 was applied by the producer and hipped in. The field was planted on April 15 with Pioneer P2088HR at 34,000 seed per acre on a 38 inch row spacing. The field emerged on April 29 and the final plant stand was 32,900 plants per acre. The producer applied 1.3 pints of Medal II, 1 quart of atrazine plus 3.2 ounces of Karate after planting. 55 gallons of 32% (193 units of N) was applied by the producer on May 15. After significant rainfall the field started showing a sulfur deficiency. The producer applied 115 pounds of ammonium sulfate (24 units of N, 28 units S) on May 17. Total fertilizer for this field was 297-20-30-28-0. The producer applied 3.6 pints of Halex GT on June 5 for weed control. The field received 24.45 inches of rain from planting to R6 (black layer) and was furrow irrigated 7 times. The field was harvested on September 24 at 16.7% moisture and yielded 234.2 bushels per acre adjusted to 15.5% moisture.

Desha County

The Desha County corn research verification field was located in the southern part of the county near McGehee. The field was 57.3 acres and the previous crop was soybeans. The soil type was Tutwiler Silt Loam. The field was worked in the fall and a burndown of 1 pint of 2,4-D plus 1 quart of glyphosate was aerially applied in February. 100 pounds of 0-0-60 was applied by the producer on March 13 and hipped in. The field was planted on March 13 with DeKalb DKC 64-69 at 34,000 seeds per acre on a 38 inch row spacing. The field emerged on April 5 and the final plant stand was 30,400 plants per acre. 50 pounds of Urea (23 units of N) plus 50 pounds of ammonium sulfate (11 units of N, 12 units of S) was applied by the producer on April 16 followed by 50 gallons of liquid 28-0-0-5 (125 units of N). Another 100 pounds of Urea (46 units of N was applied on May 7. The producer sprayed the field with 1 quart of atrazine, 22 ounces of Roundup Powermax plus 1 pint of Dual for weed control on May 13. A pretassel application of 100 pounds of Urea (46 units) was applied on May 27. Total fertilizer for the field was 251-0-60-12-0. The field received 16.15 inches of rain from planting to R6 (black layer) and was furrow irrigated 7 times. The field was harvested on August 7 at 22.7% moisture and averaged 251.0 bushels per acre adjusted to 15.5% moisture.

Jefferson County

The Jefferson County corn research verification field was located in the central part of the county near Sherrill. The field was 61.2 acres and the previous crop was soybeans. The soil type was Caspiana Silt Loam. The field was field cultivated and floated on April 20. A mixed fertilizer of 80-15-130-0-0 was variably rate applied on April 24, and then the field was bedded. The field was planted on April 24 with Pioneer P2088HR at 35,000 seeds per acre on a 30 inch row spacing. The field emerged on May 4 and the final plant stand was 34,300 plants per acre. 50 pounds of Urea (23 units N) plus 100 pounds of 18-46-0 (18 units N, 46 units P) was custom applied on May 8. A sidedress of 43 gallons of 32% (151 units of N) was applied by the producer on May 17. Total fertilizer for the field was 272-61-130-0-0. On May 20 the producer applied 3.6 pints of Halex GT plus 2 quarts of Atrazine for weed control. The field received 8.48 inches of rain from planting to R6 (black layer) and was furrow irrigated 8 times. The field was harvested on September 13 at 16.4% moisture and yielded 245.1 bushels per acre adjusted to 15.5% moisture.

Mississippi County

The Mississippi County corn research verification field was located in the eastern part of the county near Manila. The field was 71.3 acres and the previous crop was soybeans. The soil type was Tunica Silty Clay. The field was hipped and rolled on April 1. A burndown of 2 quarts of Gramoxone was applied by the producer on April 8. The field was planted on April 8 with Pioneer P1745HR at 34,000 seeds per acre on a 38 inch row spacing. The field emerged on April 19 and the final plant stand was 33,500 plants per acre. The field was sprayed on April 28 with 3.6 pints of Halex GT plus 1.5 quarts of atrazine for weed control. A mixed fertilizer of 80-10-50 was custom applied on April 29. On May 29, 200 pounds of Urea (92 units of N) was custom applied. A pretassel application of 100 pounds of Urea (46 units of N) was applied on July 5. Total fertilizer for the field was 218-10-50-0-0. The field received 26.90 inches of rain from planting to R6 (black layer) and was furrow irrigated 5 times. The field was harvested on September 13 at 15.4% moisture and yielded 206.1 bushels per acre adjusted to 15.5% moisture.

Prairie County

The Prairie County corn research verification field was located in the northern part of the county north of Des Arc. The field was 33.0 acres and the previous crop was soybeans. The soil type was Stuttgart Silt Loam. A burndown of 26 ounces of Roundup Powermax plus 1.5 pints of 2,4-D was applied on March 2. The field was disked, field cultivated and floated on April 10. A mixed fertilizer of 77-91-86-0-3 was custom applied on April 22 and the field was cultivated and bedded. The field was planted on April 23 with Pioneer P2088HR at 34,000 seeds per acre on a 30 inch row spacing. The field emerged on May 2 and the final plant population was 30,800 plants per acre. 250 pounds of Urea (115 units of N) was custom applied on May 28. 2 quarts of atrazine, 1.5 pints of generic Dual plus 1.5 quarts of glyphosate was applied on May 29. A pretassel application of 100 pounds of Urea (46 units of N) was applied on June 27. The total fertilizer for the field was 238-91-86-0-3. The field received 14.60 inches of rain from planting to R6 (black layer) and was furrow irrigated 9 times. The field had several low areas that didn't allow for efficient irrigation. Some of the field didn't receive irrigation and had some pollination issues due to the dry conditions. The field was harvested on September 22 at 15.7% moisture and yielded 192.7 bushels per acre adjusted to 15.5% moisture.

White County

The White County corn research verification field was located in the southern part of the county near Griffithville. The field was 29.0 acres and the previous crop was soybeans. The soil type was Calloway Silt Loam. A burndown of 1 quart of glyphosate was applied by the producer on March 25. The field was field cultivated and a mixed fertilizer of 80-0-75-0-0 was custom applied and bedded in on April 15. The field was planted on April 15 with Armor 1550PRO at 33,000 seeds per acre on a 30 inch row spacing. The field emerged on April 28 and the final plant population was 30,400 plants per acre. 270 pounds of Urea (124 units of N) was custom applied on May 16. A sulfur deficiency was noticed in the field, and 100 pounds of ammonium sulfate (21 units of N, 24 units of S) was applied on May 25. The producer applied 3.6 pints of Halex GT plus 1.5 quarts of atrazine on May 25 for weed control. A pretassel application of 100 pounds of Urea (46 units of N) was applied on June 20. The total fertilizer for the field was 271-0-75-24-0. The field received 16.80 inches of rain from planting to R6 (black layer) and was furrow irrigated 9 times. The field was harvested on September 6 at 18.5% moisture and yielded 247.5 bushels per acre adjusted to 15.5% moisture.

GRAIN SORGHUM FIELD REVIEW

Lee County

The Lee County grain sorghum research verification field was located in the eastern part of the county near Marianna. The field was 50.5 acres and previous crop was soybeans. The soil type was Loring/Henry Silt Loam. A mixed fertilizer of 0-0-60 was custom applied on May 25. The field was cultivated and hipped on May 26. The field was planted on May 26 with Pioneer 84P80 at 6 pounds per acre on a 38 inch row spacing. 20 gallons of 28-0-0-5 (55 units of N) was applied with the planter. The field emerged on May 31 and the final plant population was 104,900 plants per acre. 48 ounces of Warrant was applied pre emerge for weed control after planting. On June 15, 200 pounds of Urea (92 units of N) was custom applied. Total fertilizer for the field was 147-0-60-0-0. 1.2 quarts of atrazine plus 48 ounces of Warrant was custom applied on June 17 for weed control. The field was sprayed with 1.6 ounces of Tombstone on June 23 for sorghum midge control. The field received 4.3 inches of rain from planting to maturity and was furrow irrigated 5 times. The field was harvested on September 28 at 13.0% moisture and yielded 115.1 bushels per acre adjusted to 14% moisture.

Table 1. Agronomic information for the 2013 Corn Research Verification Fields.

County	Hybrid	Field Size (ac)	Row Spacing (in)	Previous Crop	Planting Population (seeds/ac)	Plant Stand (plants/ac)	Planting Date	Emergence Date	Harvest Date	Yield (bu/ac)
Arkansas	DeKalb DKC 66-97[1]	100.0	38 twin	Corn	36,000	35,300	April 26	May 3	September 14	222.8
Clay	Pioneer 2088HR[2]	91.4	38	Soybeans	34,000	32,900	April 15	April 29	September 24	234.2
Desha	DeKalb DKC 64-69[1]	57.3	38	Soybeans	34,000	30,400	March 13	April 5	August 7	251.0
Jefferson	Pioneer 2088HR[2]	61.2	30	Soybeans	35,000	34,300	April 24	May 4	September 13	245.1
Mississippi	Pioneer 1745HR[2]	71.3	38	Soybeans	34,000	33,500	April 8	April 19	September 13	206.1
Prairie	Pioneer 2088HR[2]	33.0	30	Soybeans	34,000	30,800	April 23	May 2	September 22	192.7
White	Armor 1550PRO[1]	29.0	30	Soybeans	33,000	30,400	April 15	April 28	September 6	247.5
Average		**63.3**			**34,300**	**32,500**	**April 13**	**April 25**	**September 9**	**228.5**

Traits – [1] Genuity VT Triple Pro
[2] Herculex, Roundup Ready Corn 2, Liberty Link

Table 2. Agronomic information for the 2013 Grain Sorghum Research Verification Field.

County	Hybrid	Field Size (ac)	Row Spacing (in)	Previous Crop	Planting Population (lbs/ac)	Plant Stand (plants/ac)	Planting Date	Emergence Date	Harvest Date	Yield (bu/ac)
----------Irrigated----------										
Lee	Pioneer 84P80	50.5	38	Soybeans	6	104,900	May 26	May 31	September 28	115.1

Table 3. Soil test results, applied fertilizer, total fertilizer and soil classification for the 2013 Corn Research Verification Fields.

	Soil Test (lb/ac)					Applied Fertilizer N-P-K-S-Zn[1] (lb/ac)			Total Applied Fertilizer	
County	pH	P	K	S	Zn	Preplant	Sidedress	Pre Tassel	N-P-K-S-Zn	Soil Classification
Arkansas	7.5	38	144	46	7.8	76-76-76-0-10	120-0-0-18-0	58-0-0-0-0	254-76-76-18-10	Dewitt Silt Loam
Clay	6.6	118	322	22	9.1	80-20-30-0-0	217-0-0-28-0	0-0-0-0-0	297-20-30-28-0	Fountain Silt Loam
Desha	7.5	134	276	16	3.2	0-0-60-0-0	205-0-0-12-0	46-0-0-0-0	251-0-60-12-0	Tutwiler Silt Loam
Jefferson	5.3	90	224	20	8.0	80-15-130-0-0	192-46-0-0-0	0-0-0-0-0	272-61-130-0-0	Caspiana Silt Loam
Mississippi	6.9	131	387	23	12.1	80-10-50-0-0	92-0-0-0-0	46-0-0-0-0	218-10-50-0-0	Tunica Silty Clay
Prairie	6.9	34	152	20	8.8	77-91-86-0-3	115-0-0-0-0	46-0-0-0-0	238-91-86-0-3	Stuttgart Silt Loam
White	5.9	94	218	34	4.0	80-0-75-0-0	145-0-0-24-0	46-0-0-0-0	271-0-75-24-0	Calloway Silt Loam

Table 4. Soil test results, applied fertilizer, total fertilizer and soil classification for the 2013 Grain Sorghum Research Verification Field.

	Soil Test (lb/ac)					Applied Fertilizer N-P-K-S-Zn[1] (lb/ac)		Total Applied Fertilizer	
County	pH	P	K	S	Zn	Preplant	Sidedress	N-P-K-S-Zn	Soil Classification
Lee	6.7	114	234	26	10.8	55-0-60-0-0	92-0-0-0-0	147-0-60-0-0	Loring/Henry Silt Loam

[1] N=nitrogen, P= phosphorus, K=potassium, S=sulfur and Zn=zinc.

Table 5. Pesticide information for the 2013 Corn Research Verification Fields.

County	Herbicide	Insecticide	Fungicide
Arkansas	3.6 pts Halex GT + 2 qts Atrazine + 1 oz Permit	None	None
Clay	1 qt Atrazine + 1 pt Dual - pre-emerge 3.6 pts Halex GT	Karate	None
Desha	1 qt Atrazine + 1 pt Dual + 22 oz Roundup Powermax	None	None
Jefferson	3.6 pts Halex GT + 2 qts Atrazine	None	None
Mississippi	3.6 pts Halex GT + 1.5 qts Atrazine	None	None
Prairie	2 qts Atrazine + 1.5 pt Dual + 3 pt Glyphosate	None	None
White	3.6 pts Halex GT + 1.5 qts Atrazine	None	None

Table 6. Pesticide information for the 2013 Grain Sorghum Research Verification Field.

County	Herbicide	Insecticide	Fungicide
Lee	48 oz Warrant 1.2 qts of Atrazine + 48 oz Warrant	Tombstone	None

Table 7. Irrigation information and rainfall for the 2013 Corn Research Verification Fields.

County	Irrigation Type	Number of Irrigations	Rainfall (in) Planting to Black Layer	Rainfall (in) Planting to Harvest
Arkansas	Furrow	8	7.85”	7.85”
Clay	Furrow	7	24.45”	25.15”
Desha	Furrow	7	16.15”	16.15”
Jefferson	Furrow	8	8.48”	8.48”
Mississippi	Furrow	5	26.90”	27.30”
Prairie	Furrow	9	14.60”	18.15”
White	Furrow	9	16.80”	16.80”

Table 8. Irrigation information and rainfall for the 2013 Grain Sorghum Research Verification Field.

County	Irrigation Type	Number of Irrigations	Rainfall (in) Planting to Maturity	Rainfall (in) Planting to Harvest
Lee	Furrow	4	4.3”	8.2”

*Rainfall amount measured in verification field by weather stations.
*Each furrow irrigation provided approximately 2 acre/inches.

Economic Analysis – Dr. Archie Flanders

This section provides information on production costs for the 2013 CGSRVP. Records of field operations on each field provided the basis for estimating these costs. The field records were compiled by the CGSRVP coordinator, county Extension agents, and cooperators. Production data from the 8 fields (7 corn and 1 grain sorghum) 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 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 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.

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 9 for corn and grain sorghum. Costs in this report do not include land costs, management, or other expenses and fees not associated with production. Budget summaries for corn are presented in Table 10. A summary for the grain sorghum is in Table 11. Price received for corn of $4.50/bu is the weekly average of Arkansas markets reported by the U.S.D.A. during the harvest period. The corresponding average price for grain sorghum is $4.50/bu. Average corn yield is 228.5 bu/acre and the grain sorghum yield is 115.1 bu/acre.

Average operating costs for corn in Table 9 are $616.20 per acre. Table 10 indicates that fertilizers and nutrients are the largest expense category at $228.61/acre, or 37% of total operating costs. Seed costs average $124.11, and irrigation energy costs average $57.52 per acre.

With average yield of 228.5 bu./acre, average operating costs are $2.70/bu. Operating costs range from a low of $500.91 in Mississippi County to a high of $699.94 in Jefferson County. Returns to operating costs average $411.99 per acre. Returns to operating costs have a low of $289.83 in Prairie County and a high of $509.99 in Desha County. Average fixed costs are $70.57 which leads to average total costs of $686.77 per acre. Returns to total costs average $341.42 per acre with a low of $229.92 in Prairie County and a high of $433.81 in Desha County. Total specified costs average $3.01/bu.

Table 9. Operating Costs, Total Costs[1], Costs per Bushel, and Returns for 2013 CGSRVP

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
			Corn				
Arkansas	669.08	3.00	333.52	71.51	740.59	262.01	3.32
Clay	591.08	2.52	462.82	66.50	657.57	396.33	2.81
Desha	619.51	2.47	509.99	76.18	695.69	433.81	2.77
Jefferson	699.94	2.86	403.01	74.64	774.58	328.37	3.16
Mississippi	500.91	2.43	426.54	58.66	559.57	367.88	2.72
Prairie	577.32	3.00	289.83	59.91	637.23	229.92	3.31
White	655.56	2.65	458.19	86.58	742.14	371.61	3.00
Average	**616.20**	**2.70**	**411.99**	**70.57**	**686.77**	**341.42**	**3.01**
			Grain Sorghum				
Lee	298.77	2.60	219.18	45.80	344.57	173.38	2.99
Average	**298.77**	**2.60**	**219.18**	**45.80**	**344.57**	**173.38**	**2.99**

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

The grain sorghum field in Lee County has operating costs of $298.77 per acre which is $2.60/bu. Fertilizers and nutrients are 42% of operating costs with an expense of $124.51 per acre in Table 11. Returns to operating costs are $219.18 per acre. Fixed costs are $45.80, and this leads to total costs of $344.57, or $2.99/bu. Returns to total specified costs are $173.38 per acre.

Table 10. Corn RVP, 2013 Revenue and Expenses per Acre

	County							
Receipts	Arkansas	Clay	Desha	Jefferson	Mississippi	Prairie	White	**Average**
Yield (bu.)	222.8	234.2	251.0	245.1	206.1	192.7	247.5	228.5
Price ($/bu.)	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Total Crop Revenue	**1002.60**	**1053.90**	**1129.50**	**1102.95**	**927.45**	**867.15**	**1113.75**	**1028.19**
Operating Expenses								
Seed	130.32	123.08	123.08	126.70	123.08	123.08	119.46	124.11
Fertilizers & Nutrients	266.08	226.58	208.42	275.44	163.50	251.95	208.30	228.61
Herbicides	48.85	43.18	26.83	29.06	43.34	30.00	30.92	36.02
Insecticides	0.00	10.08	0.00	0.00	0.00	0.00	0.00	1.44
Other Chemicals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom Applications	26.75	0.00	14.00	14.00	19.00	31.00	25.00	18.54
Diesel Fuel	26.60	27.62	33.53	32.05	22.45	25.67	38.48	29.48
Repairs & Maintenance	24.48	22.44	24.51	26.01	19.35	19.39	26.90	23.30
Irrigation Energy Costs	68.03	59.53	59.53	68.03	42.52	28.45	76.54	57.52
Labor, Field Activities	10.01	9.75	9.74	9.45	7.16	8.61	10.75	9.35
Other Inputs & Fees, Pre-harvest	16.73	14.95	14.44	16.27	13.11	14.86	15.27	15.09
Post-harvest Expenses	51.24	53.87	105.42	102.94	47.40	44.32	103.95	72.74
Custom Harvest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Operating Expenses	**669.08**	**591.08**	**619.51**	**699.94**	**500.91**	**577.32**	**655.56**	**616.20**
Returns to Operating Expenses	**333.52**	**462.82**	**509.99**	**403.01**	**426.54**	**289.83**	**458.19**	**411.99**
Land Rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Recovery & Fixed Costs	71.51	66.50	76.18	74.64	58.66	59.91	86.58	70.57
Total Specified Expenses[1]	**740.59**	**657.57**	**695.69**	**774.58**	**559.57**	**637.23**	**742.14**	**686.77**
Returns to Specified Expenses	**262.01**	**396.33**	**433.81**	**328.37**	**367.88**	**229.92**	**371.61**	**341.42**
Operating Expenses/bu.	3.00	2.52	2.47	2.86	2.43	3.00	2.65	2.70
Total Expenses/bu.	3.32	2.81	2.77	3.16	2.72	3.31	3.00	3.01

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

Table 11. Grain Sorghum RVP, 2013 Revenue and Expenses per Acre

	County	
Receipts	Lee	**Average**
Yield (bu.)	115.1	115.1
Price ($/bu.)	4.50	4.50
Total Crop Revenue	**517.95**	**517.95**
Operating Expenses		
Seed	20.94	20.94
Fertilizers & Nutrients	124.51	124.51
Herbicides	30.05	30.05
Insecticides	3.63	3.63
Other Chemicals	0.00	0.00
Custom Applications	31.00	31.00
Diesel Fuel	19.32	19.32
Repairs & Maintenance	15.06	15.06
Irrigation Energy Costs	12.65	12.65
Labor, Field Activities	6.02	6.02
Other Inputs & Fees, Pre-harvest	9.12	9.12
Post-harvest Expenses	26.47	26.47
Custom Harvest	0.00	0.00
Total Operating Expenses	**298.77**	**298.77**
Returns to Operating Expenses	**219.18**	**219.18**
Land Rent	0.00	0.00
Capital Recovery & Fixed Costs	45.80	45.80
Total Specified Expenses[1]	**344.57**	**344.57**
Returns to Specified Expenses	**173.38**	**173.38**
Operating Expenses/bu.	2.60	2.60
Total Expenses/bu.	2.99	2.99

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