

Date: Nov-01-2023

The following pages represent a single crop budget but at 3 levels of detail and for 3 planning yield levels

Abstract level budget - The most summarized version of a budget. (e.g., a single line represents all fertilizer costs)

Summary level budget - A more detailed crop budget. (e.g., Fertilizer is broken out into N, P, K)

Detailed level budget - All the detail for producing a crop. (e.g., The specific fertilizers are listed).

Middle yield - The basic crop budget for a region and crop.

A detailed, summary, and abstract level budget are included for the middle yield.

Low and High yield - Budgets based on the middle yield but with a lower/higher yield goal (and irrigation level).

These high and low yield level budgets only include the abstract level budgets.

The 2 tables below are sensitivity tables that show the returns over direct costs and the returns over total costs

The tables have the basic budget price in the middle column

On either side of the base price are potential prices 5% and 10% above and below this base price

TABLE 1. RETURNS OVER DIRECT COSTS

		Prices					
		\$4.41	\$4.66	\$4.90	\$5.15	\$5.39	
	90.0 ll	\$206	\$228	\$250	\$272	\$294	Low yield
Yields	100.0 ll	\$221	\$245	\$270	\$294	\$319	Middle yield
	110.0 ll	\$273	\$300	\$327	\$354	\$381	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$4.41	\$4.66	\$4.90	\$5.15	\$5.39	
	90.0 ll	\$68	\$90	\$112	\$134	\$156	Low yield
Yields	100.0 ll	\$83	\$108	\$132	\$157	\$181	Middle yield
	110.0 ll	\$136	\$163	\$190	\$217	\$244	High yield

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - Southeast KS	bu	\$4.90	100.00	\$490.22	\$490.22	_____

--TOTAL INCOME--					\$490.22	_____
DIRECT EXPENSES						
Additional labor					\$1.04	_____
Crop insurance					\$14.18	_____
Custom Operations					\$18.18	_____
Diesel					\$19.14	_____
Fertilizers					\$94.64	_____
Herbicides					\$18.92	_____
Miscellaneous					\$8.47	_____
Operator labor					\$9.44	_____
Repair & Maintenance					\$16.74	_____
Seeds					\$11.32	_____
Interest on operating capital		8% percent on direct expenses			\$8.48	_____

--TOTAL DIRECT EXPENSES--					\$220.54	
-----Total direct expenses per bu		\$2.21				
FIXED EXPENSES						
Cash rent					\$69.00	_____
Capital recovery (depreciation + interest)					\$68.45	_____

--TOTAL FIXED EXPENSES--					\$137.45	
-----Total expenses per bu		\$3.58				
RETURNS ABOVE DIRECT EXPENSES					\$269.68	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$132.22	

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - Southeast KS	bu	\$4.90	100.00	\$490.22	\$490.22	_____

--TOTAL INCOME--					\$490.22	_____
DIRECT EXPENSES						
Additional labor						
Fertilizer application				\$0.14		
Planting				\$0.71		
Spraying				\$0.20	\$1.04	_____
Crop insurance						
-----				\$14.18	\$14.18	_____
Custom Operations						
Fertilizer application				\$18.18	\$18.18	_____
Diesel						
Fertilizer application				\$0.84		
Harvesting				\$6.75		
Hauling				\$3.95		
Planting				\$1.82		
Spraying				\$1.34		
Tillage				\$4.43	\$19.14	_____
Fertilizers						
Pre-plant				\$49.69		
Nitrogen	lbs	\$0.51	99.00	\$50.16		
Phosphorus	lbs	\$0.64	39.00	\$24.80		
Potassium	lbs	\$0.43	27.00	\$11.59		
Lime	lbs	\$0.03	270.00	\$8.10	\$94.64	_____
Herbicides						
Post-emergence				\$7.45		
Pre-emergence				\$11.47	\$18.92	_____
Miscellaneous						
-----				\$8.47	\$8.47	_____
Operator labor						
Fertilizer application				\$0.44		
Harvesting				\$2.45		
Hauling				\$2.45		
Planting				\$1.13		
Spraying				\$0.63		
Tillage				\$2.33	\$9.44	_____
Repair & Maintenance						
Fertilizer application				\$1.43		
Harvesting				\$7.04		
Hauling				\$2.25		
Planting				\$2.56		
Spraying				\$0.41		
Tillage				\$3.04	\$16.74	_____
Seeds						
-----				\$11.32	\$11.32	_____
Interest on operating capital				8% percent on direct expenses	\$8.48	\$8.48 _____

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- MIDDLE YIELDS

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Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
--TOTAL DIRECT EXPENSES--					\$220.54	
-----Total direct expenses per bu \$2.21						
FIXED EXPENSES						
Cash rent				\$69.00	\$69.00	_____
Capital recovery (depreciation + interest)						
Fertilizer application				\$3.68		
Harvesting				\$29.83		
Hauling				\$9.31		
Planting				\$7.97		
Spraying				\$3.22		
Tillage				\$14.46	\$68.45	_____
--TOTAL FIXED EXPENSES--					\$137.45	
-----Total expenses per bu \$3.58						
RETURNS ABOVE DIRECT EXPENSES					=====	\$269.68
RETURNS ABOVE TOTAL SPECIFIED EXPENSES						\$132.22

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

Detailed budget page(s)

----- MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - Southeast KS	bu	\$4.90	100.00	\$490.22	\$490.22	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					\$490.22	_____
DIRECT EXPENSES						
Additional labor						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	\$15.00	0.01	\$0.14		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	hour	\$15.00	0.05	\$0.71		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	hour	\$15.00	0.01	\$0.20	\$1.04	_____
Crop insurance						

Grain Sorghum_SE_Dry	acre	\$14.18	1.00	\$14.18	\$14.18	_____
Custom Operations						
Fertilizer application						
Application of Anhydrous Ammonia	acre	\$18.18	1.00	\$18.18	\$18.18	_____
Diesel						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	gal	\$3.95	0.21	\$0.84		
Harvesting						
Header Wheat/Sorghum_25' Rigid with Combine (300-349	gal	\$3.95	1.71	\$6.75		
Hauling						
Grain Cart Wht/Sor_700 bu with Tractor(180-199hp)CB	gal	\$3.95	1.00	\$3.95		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	gal	\$3.95	0.46	\$1.82		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	gal	\$3.95	0.34	\$1.34		
Tillage						
Disk Harrow_32' with Tractor(200-249hp)CB	gal	\$3.95	0.71	\$2.81		
Field Cultivate Fld_42' with Tractor(200-249hp)CB	gal	\$3.95	0.41	\$1.63	\$19.14	_____
Fertilizers						
Pre-plant						
Lime	lb	\$0.03	270.00	\$8.10		
MAP (11-52-0)	lb	\$0.40	75.00	\$30.00		
Potash	lb	\$0.26	45.00	\$11.59		
Side-dressed						
Anhydrous	lb	\$0.41	111.00	\$44.96	\$94.64	_____
- - - ACTUAL POUNDS - 99 lb - N, 39 lb - P, 27 lb - K						
Herbicides						
Post-emergence						
Atrazine 4L	oz	\$0.17	10.00	\$1.70		
Huskie	oz	\$0.82	7.00	\$5.75		
Pre-emergence						
Bicep II Magnum	oz	\$0.36	32.00	\$11.47	\$18.92	_____
Miscellaneous						

Grain Sorghum_SE_Dry	acre	\$8.47	1.00	\$8.47	\$8.47	_____

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- MIDDLE YIELDS

Detailed budget page(s)

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Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Operator labor						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	\$20.00	0.02	\$0.44		
Harvesting						
Header Wheat/Sorghum_25' Rigid with Combine (300-349	hour	\$20.00	0.12	\$2.45		
Hauling						
Grain Cart Wht/Sor_700 bu with Tractor(180-199hp)CB	hour	\$20.00	0.12	\$2.45		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	hour	\$20.00	0.06	\$1.13		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	hour	\$20.00	0.03	\$0.63		
Tillage						
Disk Harrow_32' with Tractor(200-249hp)CB	hour	\$20.00	0.07	\$1.47		
Field Cultivate Fld_42' with Tractor(200-249hp)CB	hour	\$20.00	0.04	\$0.85	\$9.44	_____
Repair & Maintenance						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$77.85	0.02	\$1.43		
Harvesting						
Header Wheat/Sorghum_25' Rigid with Combine (300-349	Hour	\$68.95	0.10	\$7.04		
Hauling						
Grain Cart Wht/Sor_700 bu with Tractor(180-199hp)CB	Hour	\$22.08	0.10	\$2.25		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	Hour	\$54.22	0.05	\$2.56		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	Hour	\$31.29	0.01	\$0.41		
Tillage						
Disk Harrow_32' with Tractor(200-249hp)CB	Hour	\$32.99	0.06	\$2.02		
Field Cultivate Fld_42' with Tractor(200-249hp)CB	Hour	\$28.65	0.04	\$1.02	\$16.74	_____
Seeds						

Milo - concep treated	lb	\$3.40	3.33	\$11.32	\$11.32	_____
Interest on operating capital						
8% percent on direct expenses				\$8.48	\$8.48	_____
--TOTAL DIRECT EXPENSES--					\$220.54	
-----Total direct expenses per bu \$2.21						
FIXED EXPENSES						
Cash rent						

All crops_SE_Dry	acre	\$69.00	1.00	\$69.00	\$69.00	_____
Capital recovery (depreciation + interest)						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$200.66	0.02	\$3.68		
Harvesting						
Header Wheat/Sorghum_25' Rigid with Combine (300-349	Hour	\$291.96	0.10	\$29.83		
Hauling						
Grain Cart Wht/Sor_700 bu with Tractor(180-199hp)CB	Hour	\$91.12	0.10	\$9.31		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	Hour	\$168.96	0.05	\$7.97		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	Hour	\$243.29	0.01	\$3.22		
Tillage						
Disk Harrow_32' with Tractor(200-249hp)CB	Hour	\$135.99	0.06	\$8.35		
Field Cultivate Fld_42' with Tractor(200-249hp)CB	Hour	\$171.82	0.04	\$6.11	\$68.45	_____
--TOTAL FIXED EXPENSES--					\$137.45	
-----Total expenses per bu \$3.58						

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
RETURNS ABOVE DIRECT EXPENSES					=====	\$269.68
RETURNS ABOVE TOTAL SPECIFIED EXPENSES						\$132.22

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- - LOW YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - Southeast KS	bu	\$4.90	90.00	\$441.20	\$441.20	_____

--TOTAL INCOME--					\$441.20	_____
DIRECT EXPENSES						
Additional labor	-----				\$1.04	_____
Crop insurance	-----				\$14.18	_____
Custom Operations	-----				\$0.00	_____
Diesel	-----				\$19.14	_____
Fertilizers	-----				\$85.99	_____
Herbicides	-----				\$18.92	_____
Miscellaneous	-----				\$8.47	_____
Operator labor	-----				\$9.44	_____
Repair & Maintenance	-----				\$16.74	_____
Seeds	-----				\$10.19	_____
Interest on operating capital	8% percent on direct expenses				\$7.36	_____

--TOTAL DIRECT EXPENSES--					\$191.46	
-----Total direct expenses per bu \$2.13						
FIXED EXPENSES						
Cash rent	-----				\$69.00	_____
Capital recovery (depreciation + interest)	-----				\$68.45	_____

--TOTAL FIXED EXPENSES--					\$137.45	
-----Total expenses per bu \$3.65						
RETURNS ABOVE DIRECT EXPENSES					\$249.73	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$112.28	

2024 Grain Sorghum Cost-Return Budget in Southeast Kansas

----- - HIGH YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Douglas Shoup

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
INCOME						
Product						
Grain Sorghum - Southeast KS	bu	\$4.90	110.00	\$539.24	\$539.24	_____

--TOTAL INCOME--					\$539.24	_____
DIRECT EXPENSES						
Additional labor					\$1.04	_____
Crop insurance					\$14.18	_____
Custom Operations					\$0.00	_____
Diesel					\$19.14	_____
Fertilizers					\$103.30	_____
Herbicides					\$18.92	_____
Miscellaneous					\$8.47	_____
Operator labor					\$9.44	_____
Repair & Maintenance					\$16.74	_____
Seeds					\$12.45	_____
Interest on operating capital			8% percent on direct expenses		\$8.15	_____

--TOTAL DIRECT EXPENSES--					\$211.82	
-----Total direct expenses per bu \$1.93						
FIXED EXPENSES						
Cash rent					\$69.00	_____
Capital recovery (depreciation + interest)					\$68.45	_____

--TOTAL FIXED EXPENSES--					\$137.45	
-----Total expenses per bu \$3.18						
RETURNS ABOVE DIRECT EXPENSES					\$327.42	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$189.97	