

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).

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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					
		\$4.57	\$4.83	\$5.08	\$5.34	\$5.59	
		=====					
	110.0 lb	\$277	\$305	\$333	\$361	\$389	Low yield
Yields	120.0 lb	\$295	\$326	\$356	\$387	\$417	Middle yield
	130.0 lb	\$351	\$384	\$418	\$451	\$484	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$4.57	\$4.83	\$5.08	\$5.34	\$5.59	
		=====					
	110.0 lb	\$119	\$147	\$175	\$202	\$230	Low yield
Yields	120.0 lb	\$137	\$167	\$198	\$228	\$259	Middle yield
	130.0 lb	\$193	\$226	\$259	\$292	\$325	High yield

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

----- MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Grain Sorghum - North Central KS	bu	\$5.08	120.00	\$609.74	\$609.74	_____
					-----	
--TOTAL INCOME--					\$609.74	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.93	_____
Crop insurance					\$19.31	_____
Custom Operations					\$18.18	_____
Diesel					\$14.82	_____
Fertilizers					\$98.79	_____
Herbicides					\$46.55	_____
Miscellaneous					\$7.86	_____
Operator labor					\$7.08	_____
Repair & Maintenance					\$14.17	_____
Seeds					\$15.88	_____
Interest on operating capital			8% percent on direct expenses		\$9.74	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$253.30	
-----Total direct expenses per bu \$2.11						
<b>FIXED EXPENSES</b>						
Cash rent					\$103.00	_____
Capital recovery (depreciation + interest)					\$55.61	_____
					-----	
--TOTAL FIXED EXPENSES--					\$158.61	
-----Total expenses per bu \$3.43						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$356.44	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$197.82	

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Grain Sorghum - North Central KS	bu	\$5.08	120.00	\$609.74	\$609.74	_____
--TOTAL INCOME--					\$609.74	_____
<b>DIRECT EXPENSES</b>						
Additional labor						
Fertilizer application				\$0.14		
Planting				\$0.49		
Spraying				\$0.30	\$0.93	_____
Crop insurance						
-----				\$19.31	\$19.31	_____
Custom Operations						
Fertilizer application				\$18.18	\$18.18	_____
Diesel						
Fertilizer application				\$0.84		
Harvesting				\$6.75		
Hauling				\$3.95		
Planting				\$1.26		
Spraying				\$2.02	\$14.82	_____
Fertilizers						
Pre-plant				\$51.00		
Nitrogen	lbs	\$0.50	107.00	\$54.03		
Phosphorus	lbs	\$0.63	47.00	\$29.76		
Potassium	lbs	\$0.00	0.00	\$0.00		
Lime	lbs	\$0.03	500.00	\$15.00	\$98.79	_____
Herbicides						
Burndown				\$24.92		
Post-emergence				\$3.29		
Pre-emergence				\$18.34	\$46.55	_____
Miscellaneous						
-----				\$7.86	\$7.86	_____
Operator labor						
Fertilizer application				\$0.44		
Harvesting				\$2.45		
Hauling				\$2.45		
Planting				\$0.79		
Spraying				\$0.95	\$7.08	_____
Repair & Maintenance						
Fertilizer application				\$1.43		
Harvesting				\$7.04		
Hauling				\$2.25		
Planting				\$2.82		
Spraying				\$0.62	\$14.17	_____
Seeds						
-----				\$15.88	\$15.88	_____
Interest on operating capital		8% percent on direct expenses		\$9.74	\$9.74	_____
--TOTAL DIRECT EXPENSES--					\$253.30	_____
-----Total direct expenses per bu \$2.11						

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

----- MIDDLE YIELDS

*Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan*

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
FIXED EXPENSES						
Cash rent				\$103.00	\$103.00	_____
-----						
Capital recovery (depreciation + interest)						
Fertilizer application				\$3.68		
Harvesting				\$29.83		
Hauling				\$9.31		
Planting				\$7.97		
Spraying				\$4.82	\$55.61	_____
--TOTAL FIXED EXPENSES--					\$158.61	
-----Total expenses per bu \$3.43						
RETURNS ABOVE DIRECT EXPENSES					\$356.44	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$197.82	

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

----- MIDDLE YIELDS

Detailed budget page(s)

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Grain Sorghum - North Central KS	bu	\$5.08	120.00	\$609.74	\$609.74	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					\$609.74	_____
<b>DIRECT EXPENSES</b>						
Additional labor						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	\$15.00	0.01	\$0.14		
Planting						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	hour	\$15.00	0.03	\$0.49		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	hour	\$15.00	0.02	\$0.30	\$0.93	_____
Crop insurance						
-----						
Grain Sorghum_NC_Dry	acre	\$19.31	1.00	\$19.31	\$19.31	_____
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						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	gal	\$3.95	0.32	\$1.26		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	gal	\$3.95	0.51	\$2.02	\$14.82	_____
Fertilizers						
Pre-plant						
Lime	lb	\$0.03	500.00	\$15.00		
MAP (11-52-0)	lb	\$0.40	90.00	\$36.00		
Side-dressed						
Anhydrous	lb	\$0.41	118.00	\$47.79	\$98.79	_____
- - - ACTUAL POUNDS - 107 lb - N, 47 lb - P, 0 lb - K						
Herbicides						
Burndown						
Dicamba	oz	\$0.69	16.00	\$11.11		
Glyphosate	oz	\$0.43	32.00	\$13.81		
Post-emergence						
Huskie	oz	\$0.82	4.00	\$3.29		
Pre-emergence						
Bicep II Magnum	qt	\$11.47	1.60	\$18.34	\$46.55	_____
Miscellaneous						
-----						
Grain Sorghum_NC_Dry	acre	\$7.86	1.00	\$7.86	\$7.86	_____
Operator labor						
Fertilizer application						

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

Detailed budget page(s)

----- MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
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						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	hour	\$20.00	0.04	\$0.79		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	hour	\$20.00	0.05	\$0.95	\$7.08	_____
<b>Repair &amp; Maintenance</b>						
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						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$86.10	0.03	\$2.82		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	Hour	\$46.93	0.01	\$0.62	\$14.17	_____
<b>Seeds</b>						
-----						
Milo - concep treated	lb	\$3.40	4.67	\$15.88	\$15.88	_____
Interest on operating capital						
			8% percent on direct expenses	\$9.74	\$9.74	_____
<b>--TOTAL DIRECT EXPENSES--</b>					<b>\$253.30</b>	
-----Total direct expenses per bu \$2.11						
<b>FIXED EXPENSES</b>						
Cash rent						
-----						
All crops_NC_Dry	acre	\$103.00	1.00	\$103.00	\$103.00	_____
<b>Capital recovery (depreciation + interest)</b>						
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						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$243.59	0.03	\$7.97		
Spraying						
Sprayer 800gal_80' 250hp with Sprayer 800gal	Hour	\$364.94	0.01	\$4.82	\$55.61	_____
<b>--TOTAL FIXED EXPENSES--</b>					<b>\$158.61</b>	
-----Total expenses per bu \$3.43						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					<b>\$356.44</b>	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					<b>\$197.82</b>	

# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

----- - LOW YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Grain Sorghum - North Central KS	bu	\$5.08	110.00	\$558.93	\$558.93	_____
					-----	
--TOTAL INCOME--					\$558.93	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.93	_____
Crop insurance					\$19.31	_____
Custom Operations					\$0.00	_____
Diesel					\$14.82	_____
Fertilizers					\$91.81	_____
Herbicides					\$46.55	_____
Miscellaneous					\$7.86	_____
Operator labor					\$7.08	_____
Repair & Maintenance					\$14.17	_____
Seeds					\$14.55	_____
Interest on operating capital					\$8.68	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$225.76	
-----Total direct expenses per bu						\$2.05
<b>FIXED EXPENSES</b>						
Cash rent					\$103.00	_____
Capital recovery (depreciation + interest)					\$55.61	_____
					-----	
--TOTAL FIXED EXPENSES--					\$158.61	
-----Total expenses per bu						\$3.49
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$333.17	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$174.55	



# 2024 Grain Sorghum Cost-Return Budget in North Central Kansas

----- - HIGH YIELDS

Gregg Ibendahl, Daniel O'Brien, Sarah Lancaster, and Stewart Duncan

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Grain Sorghum - North Central KS	bu	\$5.08	130.00	\$660.55	\$660.55	_____
					-----	
--TOTAL INCOME--					\$660.55	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.93	_____
Crop insurance					\$19.31	_____
Custom Operations					\$0.00	_____
Diesel					\$14.82	_____
Fertilizers					\$105.77	_____
Herbicides					\$46.55	_____
Miscellaneous					\$7.86	_____
Operator labor					\$7.08	_____
Repair & Maintenance					\$14.17	_____
Seeds					\$17.20	_____
Interest on operating capital			8% percent on direct expenses		\$9.35	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$243.04	
-----Total direct expenses per bu		\$1.87				
<b>FIXED EXPENSES</b>						
Cash rent					\$103.00	_____
Capital recovery (depreciation + interest)					\$55.61	_____
					-----	
--TOTAL FIXED EXPENSES--					\$158.61	
-----Total expenses per bu		\$3.09				
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$417.51	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$258.90	