

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					
		\$30.99	\$32.71	\$34.43	\$36.15	\$37.87	
		=====					
Yields	8.5 II	\$120	\$134	\$149	\$163	\$178	Low yield
	9.5 II	\$19	\$36	\$52	\$68	\$85	Middle yield
	10.5 II	\$166	\$184	\$202	\$220	\$238	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$30.99	\$32.71	\$34.43	\$36.15	\$37.87	
		=====					
Yields	8.5 II	\$39	\$54	\$68	\$83	\$97	Low yield
	9.5 II	-\$61	-\$45	-\$29	-\$12	\$4	Middle yield
	10.5 II	\$85	\$103	\$121	\$140	\$158	High yield

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

----- MIDDLE YIELDS

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

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Forage Sorghum Silage - South Central KS	ton	\$34.43	9.50	\$327.07	\$327.07	_____
					-----	
--TOTAL INCOME--					\$327.07	_____
<b>DIRECT EXPENSES</b>						
Additional labor	-----				\$0.94	_____
Crop insurance	-----				\$21.04	_____
Custom Operations	-----				\$118.71	_____
Diesel	-----				\$7.77	_____
Fertilizers	-----				\$78.28	_____
Herbicides	-----				\$11.19	_____
Miscellaneous	-----				\$7.26	_____
Operator labor	-----				\$4.22	_____
Repair & Maintenance	-----				\$7.23	_____
Seeds	-----				\$7.80	_____
Interest on operating capital		8% percent on direct expenses			\$10.58	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$275.01	
-----Total direct expenses per ton \$28.95						
<b>FIXED EXPENSES</b>						
Cash rent	-----				\$53.00	_____
Capital recovery (depreciation + interest)	-----				\$27.71	_____
					-----	
--TOTAL FIXED EXPENSES--					\$80.71	
-----Total expenses per ton \$37.44						
					=====	
RETURNS ABOVE DIRECT EXPENSES					\$52.05	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$28.65	

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

----- MIDDLE YIELDS

Summary page(s)

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Forage Sorghum Silage - South Central KS	ton	\$34.43	9.50	\$327.07	\$327.07	_____
					-----	
--TOTAL INCOME--					\$327.07	_____
<b>DIRECT EXPENSES</b>						
<b>Additional labor</b>						
Fertilizer application				\$0.14		
Planting				\$0.71		
Spraying				\$0.10	\$0.94	_____
<b>Crop insurance</b>						
-----				\$21.04	\$21.04	_____
<b>Custom Operations</b>						
Fertilizer application				\$18.18		
Silage				\$100.53	\$118.71	_____
<b>Diesel</b>						
Fertilizer application				\$0.84		
Planting				\$1.82		
Spraying				\$0.67		
Tillage				\$4.43	\$7.77	_____
<b>Fertilizers</b>						
Pre-plant				\$39.80		
Nitrogen	lbs	\$0.50	85.00	\$42.77		
Phosphorus	lbs	\$0.64	32.00	\$20.50		
Potassium	lbs	\$0.00	0.00	\$0.00		
Lime	lbs	\$0.03	500.00	\$15.00	\$78.28	_____
<b>Herbicides</b>						
Post-emergence				\$11.19	\$11.19	_____
<b>Miscellaneous</b>						
-----				\$7.26	\$7.26	_____
<b>Operator labor</b>						
Fertilizer application				\$0.44		
Planting				\$1.13		
Spraying				\$0.32		
Tillage				\$2.33	\$4.22	_____
<b>Repair &amp; Maintenance</b>						
Fertilizer application				\$1.43		
Planting				\$2.56		
Spraying				\$0.21		
Tillage				\$3.04	\$7.23	_____
<b>Seeds</b>						
-----				\$7.80	\$7.80	_____
Interest on operating capital			8% percent on direct expenses	\$10.58	\$10.58	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$275.01	
-----Total direct expenses per ton					\$28.95	
<b>FIXED EXPENSES</b>						
<b>Cash rent</b>						
-----				\$53.00	\$53.00	_____

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

----- MIDDLE YIELDS

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

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Capital recovery (depreciation + interest)						
Fertilizer application	-----			\$3.68		
Planting	-----			\$7.97		
Spraying	-----			\$1.61		
Tillage	-----			\$14.46	\$27.71	_____
--TOTAL FIXED EXPENSES--					\$80.71	
-----Total expenses per ton \$37.44						
RETURNS ABOVE DIRECT EXPENSES					\$52.05	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					-\$28.65	

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

Detailed budget page(s)

----- MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Forage Sorghum Silage - South Central KS	ton	\$34.43	9.50	\$327.07	\$327.07	_____
Other						
Govt payments, indemnity payments, etc.						_____
					-----	
--TOTAL INCOME--					\$327.07	_____
<b>DIRECT EXPENSES</b>						
<b>Additional labor</b>						
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	\$0.10	\$0.94	_____
<b>Crop insurance</b>						
-----						
Forage Sorghum Silage_SC_Dry	acre	\$21.04	1.00	\$21.04	\$21.04	_____
<b>Custom Operations</b>						
Fertilizer application						
Application of Anhydrous Ammonia	acre	\$18.18	1.00	\$18.18		
Silage						
Field chopping and hauling only	ton	\$9.22	10.90	\$100.53	\$118.71	_____
<b>Diesel</b>						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	gal	\$3.95	0.21	\$0.84		
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	0.17	\$0.67		
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	\$7.77	_____
<b>Fertilizers</b>						
Pre-plant						
Lime	lb	\$0.03	500.00	\$15.00		
MAP (11-52-0)	lb	\$0.40	62.00	\$24.80		
Side-dressed						
Anhydrous	lb	\$0.41	95.00	\$38.48	\$78.28	_____
- - - ACTUAL POUNDS - 85 lb - N, 32 lb - P, 0 lb - K						
<b>Herbicides</b>						
Post-emergence						
AAtrex Nine-O	lb	\$5.09	2.20	\$11.19	\$11.19	_____
<b>Miscellaneous</b>						
-----						
Forage Sorghum Silage_SC_Dry	acre	\$7.26	1.00	\$7.26	\$7.26	_____
<b>Operator labor</b>						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	\$20.00	0.02	\$0.44		
Planting						
Plant - Folding_16R-30 with Tractor(180-199hp)CB	hour	\$20.00	0.06	\$1.13		
Spraying						

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

Detailed budget page(s)

----- MIDDLE YIELDS

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Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Sprayer 800gal_80' 250hp with Sprayer 800gal	hour	\$20.00	0.02	\$0.32		
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	\$4.22	_____
<b>Repair &amp; Maintenance</b>						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$77.85	0.02	\$1.43		
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	\$15.64	0.01	\$0.21		
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	\$7.23	_____
<b>Seeds</b>						
-----						
Milo (base)	lb	\$2.60	3.00	\$7.80	\$7.80	_____
Interest on operating capital						
				8% percent on direct expenses \$10.58	\$10.58	_____
<b>--TOTAL DIRECT EXPENSES--</b>					\$275.01	
-----Total direct expenses per ton \$28.95						
<b>FIXED EXPENSES</b>						
Cash rent						
-----						
All crops_SC_Dry	acre	\$53.00	1.00	\$53.00	\$53.00	_____
Capital recovery (depreciation + interest)						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$200.66	0.02	\$3.68		
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	\$121.65	0.01	\$1.61		
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	\$27.71	_____
<b>--TOTAL FIXED EXPENSES--</b>					\$80.71	
-----Total expenses per ton \$37.44						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$52.05	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					-\$28.65	

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

----- - LOW YIELDS

Budget abstract

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Forage Sorghum Silage - South Central KS	ton	\$34.43	8.50	\$292.64	\$292.64	_____
					-----	
--TOTAL INCOME--					\$292.64	_____
<b>DIRECT EXPENSES</b>						
Additional labor	-----				\$0.94	_____
Crop insurance	-----				\$21.04	_____
Custom Operations	-----				\$0.00	_____
Diesel	-----				\$7.77	_____
Fertilizers	-----				\$71.61	_____
Herbicides	-----				\$11.19	_____
Miscellaneous	-----				\$7.26	_____
Operator labor	-----				\$4.22	_____
Repair & Maintenance	-----				\$7.23	_____
Seeds	-----				\$6.98	_____
Interest on operating capital	8% percent on direct expenses				\$5.53	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$143.77	_____
-----Total direct expenses per ton					\$16.91	
<b>FIXED EXPENSES</b>						
Cash rent	-----				\$53.00	_____
Capital recovery (depreciation + interest)	-----				\$27.71	_____
					-----	
--TOTAL FIXED EXPENSES--					\$80.71	_____
-----Total expenses per ton					\$26.41	
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$148.86	=====
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$68.16	

# 2024 Forage Sorghum Silage Cost-Return Budget in South Central KS

----- - HIGH YIELDS

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

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Forage Sorghum Silage - South Central KS	ton	\$34.43	10.50	\$361.49	\$361.49	_____
					-----	
--TOTAL INCOME--					\$361.49	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.94	_____
Crop insurance					\$21.04	_____
Custom Operations					\$0.00	_____
Diesel					\$7.77	_____
Fertilizers					\$84.94	_____
Herbicides					\$11.19	_____
Miscellaneous					\$7.26	_____
Operator labor					\$4.22	_____
Repair & Maintenance					\$7.23	_____
Seeds					\$8.62	_____
Interest on operating capital			8% percent on direct expenses		\$6.13	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$159.33	
-----Total direct expenses per ton \$15.17						
<b>FIXED EXPENSES</b>						
Cash rent					\$53.00	_____
Capital recovery (depreciation + interest)					\$27.71	_____
					-----	
--TOTAL FIXED EXPENSES--					\$80.71	
-----Total expenses per ton \$22.86						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$202.16	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$121.45	