

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

For irrigated budgets the 3 yield levels are also associated with different irrigation levels

11.5 inches of water for LOW yields

13.5 inches of water for MIDDLE yields

15.5 inches of water for HIGH yields

TABLE 1. RETURNS OVER DIRECT COSTS

		Prices					
		\$4.56	\$4.81	\$5.06	\$5.32	\$5.57	
Yields	200.0 lb	\$448	\$499	\$549	\$600	\$650	Low yield
	240.0 lb	\$545	\$606	\$667	\$728	\$788	Middle yield
	260.0 lb	\$635	\$701	\$767	\$833	\$898	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$4.56	\$4.81	\$5.06	\$5.32	\$5.57	
Yields	200.0 lb	-\$21	\$30	\$80	\$131	\$182	Low yield
	240.0 lb	\$76	\$137	\$198	\$259	\$319	Middle yield
	260.0 lb	\$166	\$232	\$298	\$364	\$429	High yield

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----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						
Corn - North Central KS	bu	\$5.06	240.00	\$1,215.46	\$1,215.46	_____
					-----	
--TOTAL INCOME--					\$1,215.46	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.87	_____
Crop insurance					\$17.25	_____
Custom Operations					\$28.01	_____
Diesel					\$18.82	_____
Fertilizers					\$178.22	_____
Herbicides					\$82.88	_____
Irrigation energy (NG)					\$20.63	_____
Irrigation labor					\$9.18	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.83	_____
Repair & Maintenance					\$23.18	_____
Seeds					\$127.50	_____
Interest on operating capital		8% percent on direct expenses			\$21.10	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$548.56	_____
-----Total direct expenses per bu \$2.29						
<b>FIXED EXPENSES</b>						
Cash rent					\$215.00	_____
Capital recovery (depreciation + interest)					\$253.97	_____
					-----	
--TOTAL FIXED EXPENSES--					\$468.97	_____
-----Total expenses per bu \$4.24						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					=====	\$666.90
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>						\$197.93

13.5 acre-inches of water applied  
 150 foot well depth  
 \$ 1.53 fuel cost per acre-inch of water applied  
 .4 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 5.46 Mcf of fuel used in total

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----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						
Corn - North Central KS	bu	\$5.06	240.00	\$1,215.46	\$1,215.46	_____
					-----	
--TOTAL INCOME--					\$1,215.46	_____
<b>DIRECT EXPENSES</b>						
Irrigation						_____
Additional labor						
Fertilizer application				\$0.14		
Planting				\$0.49		
Spraying				\$0.24	\$0.87	_____
Crop insurance						
-----				\$17.25	\$17.25	_____
Custom Operations						
Fertilizer application				\$18.18		
Hauling				\$9.84	\$28.01	_____
Diesel						
Fertilizer application				\$0.84		
Harvesting				\$5.63		
Hauling				\$7.79		
Planting				\$1.26		
Spraying				\$1.94		
Tillage				\$1.37	\$18.82	_____
Fertilizers						
Pre-plant				\$15.00		
Side-dressed				\$98.42		
Nitrogen	lbs	\$0.51	217.00	\$109.65		
Phosphorus	lbs	\$0.64	84.00	\$53.57		
Potassium	lbs	\$0.00	0.00	\$0.00		
Lime	lbs	\$0.03	500.00	\$15.00	\$178.22	_____
Herbicides						
Burndown				\$19.37		
Post-emergence				\$27.93		
Pre-emergence				\$35.58	\$82.88	_____
Irrigation energy (NG)						
Irrigation				\$20.63	\$20.63	_____
Irrigation labor						
Irrigation				\$9.18	\$9.18	_____
Miscellaneous						
-----				\$12.10	\$12.10	_____
Operator labor						
Fertilizer application				\$0.44		
Harvesting				\$2.04		
Hauling				\$4.09		
Planting				\$0.79		
Spraying				\$0.76		
Tillage				\$0.72	\$8.83	_____
Repair & Maintenance						

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----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
Fertilizer application -----				\$1.43		
Harvesting -----				\$7.64		
Hauling -----				\$4.69		
Irrigation -----				\$4.86		
Planting -----				\$2.82		
Spraying -----				\$0.81		
Tillage -----				\$0.93	\$23.18	_____
 Seeds						
-----				\$127.50	\$127.50	_____
 Interest on operating capital		8% percent on direct expenses		\$21.10	\$21.10	_____
 --TOTAL DIRECT EXPENSES--					\$548.56	
-----Total direct expenses per bu		\$2.29				
 FIXED EXPENSES						
Cash rent						
-----				\$215.00	\$215.00	_____
 Capital recovery (depreciation + interest)						
Fertilizer application -----				\$3.68		
Harvesting -----				\$28.08		
Hauling -----				\$19.59		
Irrigation -----				\$182.82		
Planting -----				\$7.97		
Spraying -----				\$6.33		
Tillage -----				\$5.50	\$253.97	_____
 --TOTAL FIXED EXPENSES--					\$468.97	
-----Total expenses per bu		\$4.24				
 RETURNS ABOVE DIRECT EXPENSES					\$666.90	
 RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$197.93	

13.5 acre-inches of water applied  
 150 foot well depth  
 \$ 1.53 fuel cost per acre-inch of water applied  
 .4 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 5.46 Mcf of fuel used in total

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----North Central Kansas - MIDDLE YIELDS

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

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - North Central KS	bu	\$5.06	240.00	\$1,215.46	\$1,215.46	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					\$1,215.46	_____
<b>DIRECT EXPENSES</b>						
Irrigation						
	hour		?			_____
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 1000gal_100' 300hp with Sprayer 1000gal	hour	\$15.00	0.02	\$0.24	\$0.87	_____
Crop insurance						
-----						
Corn_NC_Irr	acre	\$17.25	1.00	\$17.25	\$17.25	_____
Custom Operations						
Fertilizer application						
Application of Anhydrous Ammonia	acre	\$18.18	1.00	\$18.18		
Hauling						
Corn drying (1 pt) - continuous flow dryer	bu	\$0.04	240.00	\$9.84	\$28.01	_____
Diesel						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	gal	\$3.95	0.21	\$0.84		
Harvesting						
Header - Corn_12R-30 with Combine (300-349 hp)	gal	\$3.95	1.42	\$5.63		
Hauling						
Grain Cart Corn_1000 bu with Tractor(200-249hp)CB	gal	\$3.95	1.97	\$7.79		
Planting						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	gal	\$3.95	0.32	\$1.26		
Spraying						
Sprayer 1000gal_100' 300hp with Sprayer 1000gal	gal	\$3.95	0.49	\$1.94		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	gal	\$3.95	0.35	\$1.37	\$18.82	_____
Fertilizers						
Pre-plant						
Lime	lb	\$0.03	500.00	\$15.00		
Side-dressed						
Anhydrous	lb	\$0.41	243.00	\$98.42		
with planter						
MAP (11-52-0)	lb	\$0.40	162.00	\$64.80	\$178.22	_____
- - - ACTUAL POUNDS - 217 lb - N, 84 lb - P, 0 lb - K						
Herbicides						
Burndown						
Dicamba	oz	\$0.69	8.00	\$5.55		
Glyphosate	oz	\$0.43	32.00	\$13.81		
Post-emergence						
Glyphosate	oz	\$0.43	21.00	\$9.07		

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----North Central Kansas - MIDDLE YIELDS

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

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Status	oz	\$3.77	5.00	\$18.86		
Pre-emergence						
Bicep II Magnum	oz	\$0.36	40.00	\$14.33		
Fierce	oz	\$7.08	3.00	\$21.25	\$82.88	_____
Irrigation energy (NG)						
Irrigation						
Well, pump, and gearhead	ac-in	\$1.53	13.50	\$20.63	\$20.63	_____
Irrigation labor						
Irrigation						
Well, pump, and gearhead	hour	\$17.00	0.54	\$9.18	\$9.18	_____
Miscellaneous						
-----						
Corn_NC_Irr	acre	\$12.10	1.00	\$12.10	\$12.10	_____
Operator labor						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	hour	\$20.00	0.02	\$0.44		
Harvesting						
Header - Corn_12R-30 with Combine (300-349 hp)	hour	\$20.00	0.10	\$2.04		
Hauling						
Grain Cart Corn_1000 bu with Tractor(200-249hp)CB	hour	\$20.00	0.20	\$4.09		
Planting						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	hour	\$20.00	0.04	\$0.79		
Spraying						
Sprayer 1000gal_100' 300hp with Sprayer 1000gal	hour	\$20.00	0.04	\$0.76		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	hour	\$20.00	0.04	\$0.72	\$8.83	_____
Repair & Maintenance						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$77.85	0.02	\$1.43		
Harvesting						
Header - Corn_12R-30 with Combine (300-349 hp)	Hour	\$89.75	0.09	\$7.64		
Hauling						
Grain Cart Corn_1000 bu with Tractor(200-249hp)CB	Hour	\$55.15	0.09	\$4.69		
Irrigation						
Well, pump, and gearhead	ac-in	?	13.50			
Well, pump, and gearhead	ac-in	\$0.36	13.50	\$4.86		
Planting						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$86.10	0.03	\$2.82		
Spraying						
Sprayer 1000gal_100' 300hp with Sprayer 1000gal	Hour	\$76.98	0.01	\$0.81		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$31.08	0.03	\$0.93	\$23.18	_____
Seeds						
-----						
Corn - Roundup ready, insect control, & rootworm control	1K seeds	\$4.25	30.00	\$127.50	\$127.50	_____
Interest on operating capital						
				8% percent on direct expenses	\$21.10	_____
--TOTAL DIRECT EXPENSES--					\$548.56	-----
-----Total direct expenses per bu					\$2.29	
FIXED EXPENSES						
Cash rent						
-----						
All crops_NC_Irr	acre	\$215.00	1.00	\$215.00	\$215.00	_____

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----North Central Kansas - MIDDLE YIELDS

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

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Capital recovery (depreciation + interest)						
Fertilizer application						
Nutrient applicator_60 ft with Tractor(200-249hp)CB	Hour	\$200.66	0.02	\$3.68		
Harvesting						
Header - Corn_12R-30 with Combine (300-349 hp)	Hour	\$329.79	0.09	\$28.08		
Hauling						
Grain Cart Corn_1000 bu with Tractor(200-249hp)CB	Hour	\$230.12	0.09	\$19.59		
Irrigation						
Irrigation - Center Pivot	acre	\$89.25	1.00	\$89.25		
Power unit	acre	\$17.67	1.00	\$17.67		
Well, pump, and gearhead	acre	\$75.90	1.00	\$75.90		
Planting						
NT Plant-Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$243.59	0.03	\$7.97		
Spraying						
Sprayer 1000gal_100' 300hp with Sprayer 1000gal	Hour	\$598.66	0.01	\$6.33		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$184.27	0.03	\$5.50	\$253.97	_____
--TOTAL FIXED EXPENSES--					\$468.97	
-----Total expenses per bu \$4.24						
RETURNS ABOVE DIRECT EXPENSES					\$666.90	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$197.93	

13.5 acre-inches of water applied  
 150 foot well depth  
 \$ 1.53 fuel cost per acre-inch of water applied  
 .4 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 5.46 Mcf of fuel used in total

# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----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						
Corn - North Central KS	bu	\$5.06	200.00	\$1,012.88	\$1,012.88	_____
					-----	
--TOTAL INCOME--					\$1,012.88	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.87	_____
Crop insurance					\$17.25	_____
Custom Operations					\$0.00	_____
Diesel					\$18.82	_____
Fertilizers					\$151.01	_____
Herbicides					\$82.88	_____
Irrigation energy (NG)					\$17.57	_____
Irrigation labor					\$7.82	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.83	_____
Repair & Maintenance					\$22.46	_____
Seeds					\$106.25	_____
Interest on operating capital		8% percent on direct expenses			\$17.83	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$463.69	_____
-----Total direct expenses per bu		\$2.32				
<b>FIXED EXPENSES</b>						
Cash rent					\$215.00	_____
Capital recovery (depreciation + interest)					\$253.97	_____
					-----	
--TOTAL FIXED EXPENSES--					\$468.97	_____
-----Total expenses per bu		\$4.66				
<b>RETURNS ABOVE DIRECT EXPENSES</b>					=====	
					\$549.19	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>						
					\$80.22	

11.5 acre-inches of water applied  
 150 foot well depth  
 \$ 1.53 fuel cost per acre-inch of water applied  
 .4 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 4.65 Mcf of fuel used in total



# 2024 Irrigated Corn (center-pivot) Cost-Return Budget

-----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						
Corn - North Central KS	bu	\$5.06	260.00	\$1,316.74	\$1,316.74	_____
					-----	
--TOTAL INCOME--					\$1,316.74	_____
<b>DIRECT EXPENSES</b>						
-----						
Additional labor					\$0.87	_____
Crop insurance					\$17.25	_____
Custom Operations					\$0.00	_____
Diesel					\$18.82	_____
Fertilizers					\$191.82	_____
Herbicides					\$82.88	_____
Irrigation energy (NG)					\$23.68	_____
Irrigation labor					\$10.54	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.83	_____
Repair & Maintenance					\$23.90	_____
Seeds					\$138.13	_____
Interest on operating capital		8% percent on direct expenses			\$21.15	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$549.96	_____
-----Total direct expenses per bu \$2.12						
<b>FIXED EXPENSES</b>						
Cash rent					\$215.00	_____
Capital recovery (depreciation + interest)					\$253.97	_____
					-----	
--TOTAL FIXED EXPENSES--					\$468.97	_____
-----Total expenses per bu \$3.92						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$766.78	=====
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$297.81	

15.5 acre-inches of water applied  
 150 foot well depth  
 \$ 1.53 fuel cost per acre-inch of water applied  
 .4 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 6.27 Mcf of fuel used in total