

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

12.0 inches of water for LOW yields

14.0 inches of water for MIDDLE yields

16.0 inches of water for HIGH yields

TABLE 1. RETURNS OVER DIRECT COSTS

		Prices					
		\$4.58	\$4.84	\$5.09	\$5.35	\$5.60	
Yields	210.0 ll	\$448	\$501	\$555	\$608	\$662	Low yield
	240.0 ll	\$538	\$599	\$660	\$721	\$782	Middle yield
	260.0 ll	\$595	\$661	\$727	\$794	\$860	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$4.58	\$4.84	\$5.09	\$5.35	\$5.60	
Yields	210.0 ll	-\$83	-\$29	\$24	\$78	\$131	Low yield
	240.0 ll	\$7	\$68	\$129	\$191	\$252	Middle yield
	260.0 ll	\$65	\$131	\$197	\$263	\$329	High yield

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northwest KS	bu	\$5.09	240.00	\$1,222.34	\$1,222.34	_____
					-----	
--TOTAL INCOME--					\$1,222.34	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$30.76	_____
Diesel					\$17.87	_____
Fertilizers					\$170.07	_____
Fungicides					\$5.10	_____
Herbicides					\$73.71	_____
Insecticides					\$9.76	_____
Irrigation energy (NG)					\$37.74	_____
Irrigation labor					\$9.52	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.34	_____
Repair & Maintenance					\$21.53	_____
Seeds					\$136.00	_____
Interest on operating capital		8% percent on direct expenses			\$21.63	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$562.41	_____
-----Total direct expenses per bu		\$2.34				
<b>FIXED EXPENSES</b>						
Cash rent					\$230.00	_____
Capital recovery (depreciation + interest)					\$300.48	_____
					-----	
--TOTAL FIXED EXPENSES--					\$530.48	_____
-----Total expenses per bu		\$4.55				
<b>RETURNS ABOVE DIRECT EXPENSES</b>					=====	
					\$659.93	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>						
					\$129.45	

14 acre-inches of water applied  
 300 foot well depth  
 \$ 2.7 fuel cost per acre-inch of water applied  
 .71 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 9.99 Mcf of fuel used in total

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northwest KS	bu	\$5.09	240.00	\$1,222.34	\$1,222.34	_____
					-----	
--TOTAL INCOME--					\$1,222.34	_____
<b>DIRECT EXPENSES</b>						
Irrigation						_____
Additional labor						
Planting				\$0.47		
Spraying				\$0.23	\$0.70	_____
Crop consulting						
-----				\$7.57	\$7.57	_____
Crop insurance						
-----				\$30.76	\$30.76	_____
Diesel						
Harvesting				\$5.63		
Hauling				\$7.79		
Planting				\$1.21		
Spraying				\$1.88		
Tillage				\$1.37	\$17.87	_____
Fertilizers						
Nitrogen	lbs	\$0.63	185.00	\$116.50		
Phosphorus	lbs	\$0.64	84.00	\$53.57		
Potassium	lbs	\$0.00	0.00	\$0.00		
Lime	lbs	\$0.00	0.00	\$0.00	\$170.07	_____
Fungicides						
-----				\$5.10	\$5.10	_____
Herbicides						
Burndown				\$23.59		
Post-emergence				\$6.91		
Pre-emergence				\$43.21	\$73.71	_____
Insecticides						
-----				\$9.76	\$9.76	_____
Irrigation energy (NG)						
Irrigation				\$37.74	\$37.74	_____
Irrigation labor						
Irrigation				\$9.52	\$9.52	_____
Miscellaneous						
-----				\$12.10	\$12.10	_____
Operator labor						
Harvesting				\$2.04		
Hauling				\$4.09		
Planting				\$0.75		
Spraying				\$0.74		
Tillage				\$0.72	\$8.34	_____
Repair & Maintenance						

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Summary page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Harvesting	-----			\$7.64		
Hauling	-----			\$4.69		
Irrigation	-----			\$5.04		
Planting	-----			\$2.42		
Spraying	-----			\$0.81		
Tillage	-----			\$0.93	\$21.53	_____
Seeds	-----			\$136.00	\$136.00	_____
Interest on operating capital		8% percent on direct expenses		\$21.63	\$21.63	_____
--TOTAL DIRECT EXPENSES--					\$562.41	
-----Total direct expenses per bu \$2.34						
<b>FIXED EXPENSES</b>						
Cash rent	-----			\$230.00	\$230.00	_____
Capital recovery (depreciation + interest)						
Harvesting	-----			\$28.08		
Hauling	-----			\$19.59		
Irrigation	-----			\$234.04		
Planting	-----			\$6.99		
Spraying	-----			\$6.28		
Tillage	-----			\$5.50	\$300.48	_____
--TOTAL FIXED EXPENSES--					\$530.48	
-----Total expenses per bu \$4.55						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$659.93	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$129.45	

14 acre-inches of water applied  
 300 foot well depth  
 \$ 2.7 fuel cost per acre-inch of water applied  
 .71 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 9.99 Mcf of fuel used in total

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northwest KS	bu	\$5.09	240.00	\$1,222.34	\$1,222.34	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					\$1,222.34	_____
<b>DIRECT EXPENSES</b>						
Irrigation						
	hour		?			_____
Additional labor						
Planting						
Plant - Folding_24R-30 with Tractor(180-199hp)CB	hour	\$15.00	0.03	\$0.47		
Spraying						
Sprayer 1200+gal_120' 300hp with Sprayer 1200+gal	hour	\$15.00	0.02	\$0.23	\$0.70	_____
Crop consulting						
-----						
Corn_NW_Irr	acre	\$7.57	1.00	\$7.57	\$7.57	_____
Crop insurance						
-----						
Corn_NW_Irr	acre	\$30.76	1.00	\$30.76	\$30.76	_____
Diesel						
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						
Plant - Folding_24R-30 with Tractor(180-199hp)CB	gal	\$3.95	0.31	\$1.21		
Spraying						
Sprayer 1200+gal_120' 300hp with Sprayer 1200+gal	gal	\$3.95	0.48	\$1.88		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	gal	\$3.95	0.35	\$1.37	\$17.87	_____
Fertilizers						
with planter						
MAP (11-52-0)	lb	\$0.40	162.00	\$64.80		
Urea	lb	\$0.29	363.00	\$105.27	\$170.07	_____
- - - ACTUAL POUNDS - 185 lb - N, 84 lb - P, 0 lb - K						
Fungicides						
-----						
Headline	oz	\$1.68	1.58	\$2.65		
Quilt,Xcel	oz	\$1.55	1.58	\$2.45	\$5.10	_____
Herbicides						
Burndown						
2,4-D LV 6	gal	\$0.18	8.00	\$1.44		
Dicamba	oz	\$0.69	12.00	\$8.33		
Glyphosate	oz	\$0.43	32.00	\$13.81		
Post-emergence						
Glyphosate	oz	\$0.43	16.00	\$6.91		
Pre-emergence						
Atrazine 4L	qt	\$5.45	1.50	\$8.18		
Corvus	oz	\$6.26	5.60	\$35.03	\$73.71	_____

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Insecticides						
-----						
Hero	oz	\$1.89	5.15	\$9.76	\$9.76	_____
Irrigation energy (NG)						
Irrigation						
Well, pump, and gearhead	ac-in	\$2.70	14.00	\$37.74	\$37.74	_____
Irrigation labor						
Irrigation						
Well, pump, and gearhead	hour	\$17.00	0.56	\$9.52	\$9.52	_____
Miscellaneous						
-----						
Corn_NW_Irr	acre	\$12.10	1.00	\$12.10	\$12.10	_____
Operator labor						
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						
Plant - Folding_24R-30 with Tractor(180-199hp)CB	hour	\$20.00	0.04	\$0.75		
Spraying						
Sprayer 1200+gal_120' 300hp with Sprayer 1200+gal	hour	\$20.00	0.04	\$0.74		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	hour	\$20.00	0.04	\$0.72	\$8.34	_____
Repair & Maintenance						
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	?	14.00			
	ac-in	\$0.36	14.00	\$5.04		
Planting						
Plant - Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$77.10	0.03	\$2.42		
Spraying						
Sprayer 1200+gal_120' 300hp with Sprayer 1200+gal	Hour	\$91.69	0.01	\$0.81		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$31.08	0.03	\$0.93	\$21.53	_____
Seeds						
-----						
Corn - Roundup ready, insect control, & rootworm control	1K seeds	\$4.25	32.00	\$136.00	\$136.00	_____
Interest on operating capital						
				8% percent on direct expenses	\$21.63	_____
--TOTAL DIRECT EXPENSES--					\$562.41	
-----Total direct expenses per bu \$2.34						
FIXED EXPENSES						
Cash rent						
-----						
All crops_NW_Irr	acre	\$230.00	1.00	\$230.00	\$230.00	_____
Capital recovery (depreciation + interest)						
Harvesting						
Header - Corn_12R-30 with Combine (300-349 hp)	Hour	\$329.79	0.09	\$28.08		

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

-----Northwest Kansas - MIDDLE YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Detailed budget page(s)

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
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	\$31.29	1.00	\$31.29		
Well, pump, and gearhead	acre	\$113.49	1.00	\$113.49		
Planting						
Plant - Folding_24R-30 with Tractor(180-199hp)CB	Hour	\$222.52	0.03	\$6.99		
Spraying						
Sprayer 1200+gal_120' 300hp with Sprayer 1200+gal	Hour	\$713.01	0.01	\$6.28		
Tillage						
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$184.27	0.03	\$5.50	\$300.48	_____
					-----	
--TOTAL FIXED EXPENSES--					\$530.48	
-----Total expenses per bu \$4.55						
					=====	
RETURNS ABOVE DIRECT EXPENSES					\$659.93	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$129.45	

14 acre-inches of water applied  
 300 foot well depth  
 \$ 2.7 fuel cost per acre-inch of water applied  
 .71 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 9.99 Mcf of fuel used in total

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

-----Northwest Kansas - LOW YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northwest KS	bu	\$5.09	210.00	\$1,069.54	\$1,069.54	_____
					-----	
--TOTAL INCOME--					\$1,069.54	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$30.76	_____
Diesel					\$17.87	_____
Fertilizers					\$148.81	_____
Fungicides					\$5.10	_____
Herbicides					\$73.71	_____
Insecticides					\$9.76	_____
Irrigation energy (NG)					\$32.35	_____
Irrigation labor					\$8.16	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.34	_____
Repair & Maintenance					\$20.81	_____
Seeds					\$119.00	_____
Interest on operating capital		8% percent on direct expenses			\$19.80	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$514.85	_____
-----Total direct expenses per bu		\$2.45				
<b>FIXED EXPENSES</b>						
Cash rent					\$230.00	_____
Capital recovery (depreciation + interest)					\$300.48	_____
					-----	
--TOTAL FIXED EXPENSES--					\$530.48	_____
-----Total expenses per bu		\$4.98				
<b>RETURNS ABOVE DIRECT EXPENSES</b>					=====	
					\$554.69	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>						
					\$24.21	

12 acre-inches of water applied  
 300 foot well depth  
 \$ 2.7 fuel cost per acre-inch of water applied  
 .71 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 8.56 Mcf of fuel used in total



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

-----Northwest Kansas - HIGH YIELDS

Gregg Ibendahl, Daniel O'Brien, Lucas Haag, Sarah Lancaster, and John Holman

Budget abstract

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Corn - Northwest KS	bu	\$5.09	260.00	\$1,324.20	\$1,324.20	_____
					-----	
--TOTAL INCOME--					\$1,324.20	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$30.76	_____
Diesel					\$17.87	_____
Fertilizers					\$184.24	_____
Fungicides					\$5.10	_____
Herbicides					\$73.71	_____
Insecticides					\$9.76	_____
Irrigation energy (NG)					\$43.14	_____
Irrigation labor					\$10.88	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.34	_____
Repair & Maintenance					\$22.25	_____
Seeds					\$147.33	_____
Interest on operating capital		8% percent on direct expenses			\$22.95	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$596.71	_____
-----Total direct expenses per bu \$2.3						
<b>FIXED EXPENSES</b>						
Cash rent					\$230.00	_____
Capital recovery (depreciation + interest)					\$300.48	_____
					-----	
--TOTAL FIXED EXPENSES--					\$530.48	_____
-----Total expenses per bu \$4.34						
					=====	
RETURNS ABOVE DIRECT EXPENSES					\$727.49	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$197.01	_____

16 acre-inches of water applied  
 300 foot well depth  
 \$ 2.7 fuel cost per acre-inch of water applied  
 .71 Mcf of natural gas per acre-inch of water applied  
 \$ 3.78 per Mcf for cost of natural gas  
 11.41 Mcf of fuel used in total