

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

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

8.0 inches of water for LOW yields

10.0 inches of water for MIDDLE yields

12.0 inches of water for HIGH yields

TABLE 1. RETURNS OVER DIRECT COSTS

		Prices					
		\$36.82	\$38.86	\$40.91	\$42.96	\$45.00	
	17.0 ll	\$380	\$415	\$449	\$484	\$519	Low yield
Yields	22.0 ll	\$517	\$562	\$607	\$652	\$697	Middle yield
	26.0 ll	\$660	\$713	\$766	\$819	\$873	High yield

TABLE 2. RETURNS OVER TOTAL COSTS

		Prices					
		\$36.82	\$38.86	\$40.91	\$42.96	\$45.00	
	17.0 ll	-\$105	-\$70	-\$35	-\$0	\$35	Low yield
Yields	22.0 ll	\$33	\$78	\$123	\$168	\$213	Middle yield
	26.0 ll	\$175	\$229	\$282	\$335	\$388	High yield

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

Budget abstract

-----Western Kansas - MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Sunflower (Confectionary) - Western KS	cwt	\$40.91	22.00	\$900.02	\$900.02	_____
					-----	
--TOTAL INCOME--					\$900.02	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$23.50	_____
Custom Operations					\$18.18	_____
Diesel					\$18.76	_____
Fertilizers					\$48.39	_____
Herbicides					\$33.77	_____
Insecticides					\$17.90	_____
Irrigation energy (NG)					\$26.96	_____
Irrigation labor					\$6.80	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.81	_____
Repair & Maintenance					\$22.00	_____
Seeds					\$36.00	_____
Interest on operating capital		8% percent on direct expenses			\$11.26	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$292.69	_____
-----Total direct expenses per cwt \$13.3						
<b>FIXED EXPENSES</b>						
Cash rent					\$178.00	_____
Capital recovery (depreciation + interest)					\$306.42	_____
					-----	
--TOTAL FIXED EXPENSES--					\$484.42	_____
-----Total expenses per cwt \$35.32						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					<b>\$607.33</b>	<b>=====</b>
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					<b>\$122.90</b>	

10 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  
 7.13 Mcf of fuel used in total

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

-----Western 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						
Sunflower (Confectionary) - Western KS	cwt	\$40.91	22.00	\$900.02	\$900.02	_____
					-----	
<b>--TOTAL INCOME--</b>					\$900.02	_____
<b>DIRECT EXPENSES</b>						
Irrigation	-----					_____
Additional labor						
Planting	-----				\$0.47	
Spraying	-----				\$0.23	\$0.70 _____
Crop consulting	-----				\$7.57	\$7.57 _____
Crop insurance	-----				\$23.50	\$23.50 _____
Custom Operations						
Fertilizer application	-----				\$18.18	\$18.18 _____
Diesel						
Harvesting	-----				\$5.63	
Hauling	-----				\$3.89	
Planting	-----				\$1.21	
Spraying	-----				\$1.88	
Tillage	-----				\$6.15	\$18.76 _____
Fertilizers						
Side-dressed	-----				\$31.59	
Nitrogen	lbs	\$0.50	69.00	\$34.50		
Phosphorus	lbs	\$0.63	22.00	\$13.89		
Potassium	lbs	\$0.00	0.00	\$0.00		
Lime	lbs	\$0.00	0.00	\$0.00	\$48.39	_____
Herbicides						
Post-emergence	-----				\$1.04	
Pre-emergence	-----				\$32.72	\$33.77 _____
Insecticides	-----				\$17.90	\$17.90 _____
Irrigation energy (NG)						
Irrigation	-----				\$26.96	\$26.96 _____
Irrigation labor						
Irrigation	-----				\$6.80	\$6.80 _____
Miscellaneous	-----				\$12.10	\$12.10 _____
Operator labor						
Harvesting	-----				\$2.04	
Hauling	-----				\$2.04	
Planting	-----				\$0.75	
Spraying	-----				\$0.74	
Tillage	-----				\$3.23	\$8.81 _____
Repair & Maintenance						

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

Summary page(s)

-----Western Kansas - MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Harvesting	-----			\$7.64		
Hauling	-----			\$2.35		
Irrigation	-----			\$3.60		
Planting	-----			\$2.42		
Spraying	-----			\$0.81		
Tillage	-----			\$5.18	\$22.00	_____
Seeds	-----			\$36.00	\$36.00	_____
Interest on operating capital		8% percent on direct expenses		\$11.26	\$11.26	_____
--TOTAL DIRECT EXPENSES--					\$292.69	
-----Total direct expenses per cwt \$13.3						
<b>FIXED EXPENSES</b>						
Cash rent	-----			\$178.00	\$178.00	_____
Capital recovery (depreciation + interest)						
Harvesting	-----			\$28.08		
Hauling	-----			\$9.79		
Irrigation	-----			\$234.04		
Planting	-----			\$6.99		
Spraying	-----			\$6.28		
Tillage	-----			\$21.24	\$306.42	_____
--TOTAL FIXED EXPENSES--					\$484.42	
-----Total expenses per cwt \$35.32						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$607.33	
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					\$122.90	
10 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						
7.13 Mcf of fuel used in total						

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

Detailed budget page(s)

-----Western Kansas - MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Sunflower (Confectionary) - Western KS	cwt	\$40.91	22.00	\$900.02	\$900.02	_____
Other						
Govt payments, indemnity payments, etc.						_____
--TOTAL INCOME--					\$900.02	_____
<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						
-----						
Sunflower-confectionary_West_Irr	acre	\$7.57	1.00	\$7.57	\$7.57	_____
Crop insurance						
-----						
Sunflower-confectionary_West_Irr	acre	\$23.50	1.00	\$23.50	\$23.50	_____
Custom Operations						
Fertilizer application						
Application of Anhydrous Ammonia	acre	\$18.18	1.00	\$18.18	\$18.18	_____
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	0.99	\$3.89		
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						
Chisel Plow-Folding_32' with Tractor(200-249hp)CB	gal	\$3.95	0.67	\$2.64		
Disk Harrow_42' with Tractor(200-249hp)CB	gal	\$3.95	0.54	\$2.14		
Field Cultivate Fld_50' with Tractor(200-249hp)CB	gal	\$3.95	0.35	\$1.37	\$18.76	_____
Fertilizers						
Side-dressed						
Anhydrous	lb	\$0.41	78.00	\$31.59		
with planter						
MAP (11-52-0)	lb	\$0.40	42.00	\$16.80	\$48.39	_____
--- ACTUAL POUNDS - 69 lb - N, 22 lb - P, 0 lb - K						
Herbicides						
Post-emergence						
Beyond	oz	\$3.86	0.27	\$1.04		
Pre-emergence						
Prowl H2O	oz	\$0.42	48.00	\$20.30		
Spartan Charge	oz	\$2.48	5.00	\$12.42	\$33.77	_____
Insecticides						

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

Detailed budget page(s)

-----Western Kansas - MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
-----						
Lorsban 4E	oz	\$0.45	24.00	\$10.87		
Warrior 1EC	oz	\$3.51	2.00	\$7.03	\$17.90	_____
<b>Irrigation energy (NG)</b>						
Irrigation						
Well, pump, and gearhead	ac-in	\$2.70	10.00	\$26.96	\$26.96	_____
<b>Irrigation labor</b>						
Irrigation						
Well, pump, and gearhead	hour	\$17.00	0.40	\$6.80	\$6.80	_____
<b>Miscellaneous</b>						
-----						
Sunflower-confectionary_West_Irr	acre	\$12.10	1.00	\$12.10	\$12.10	_____
<b>Operator labor</b>						
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	0.10	\$2.04		
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						
Chisel Plow-Folding_32' with Tractor(200-249hp)CB	hour	\$20.00	0.07	\$1.39		
Disk Harrow_42' with Tractor(200-249hp)CB	hour	\$20.00	0.06	\$1.12		
Field Cultivate Fld_50' with Tractor(200-249hp)CB	hour	\$20.00	0.04	\$0.72	\$8.81	_____
<b>Repair &amp; Maintenance</b>						
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	\$27.57	0.09	\$2.35		
Irrigation						
	ac-in	?	10.00			
Well, pump, and gearhead	ac-in	\$0.36	10.00	\$3.60		
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						
Chisel Plow-Folding_32' with Tractor(200-249hp)CB	Hour	\$33.82	0.06	\$1.95		
Disk Harrow_42' with Tractor(200-249hp)CB	Hour	\$49.24	0.05	\$2.30		
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$31.08	0.03	\$0.93	\$22.00	_____
<b>Seeds</b>						
-----						
Sunflowers - Confection	1K seeds	\$2.00	18.00	\$36.00	\$36.00	_____
Interest on operating capital						
				8% percent on direct expenses	\$11.26	_____
<b>--TOTAL DIRECT EXPENSES--</b>						
					\$292.69	
-----Total direct expenses per cwt						\$13.3
<b>FIXED EXPENSES</b>						
Cash rent						
-----						
All crops_West_irr	acre	\$178.00	1.00	\$178.00	\$178.00	_____

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

Detailed budget page(s)

-----Western Kansas - MIDDLE YIELDS

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
Capital recovery (depreciation + interest)						
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	\$115.06	0.09	\$9.79		
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						
Chisel Plow-Folding_32' with Tractor(200-249hp)CB	Hour	\$128.54	0.06	\$7.43		
Disk Harrow_42' with Tractor(200-249hp)CB	Hour	\$177.70	0.05	\$8.31		
Field Cultivate Fld_50' with Tractor(200-249hp)CB	Hour	\$184.27	0.03	\$5.50	\$306.42	
					-----	
--TOTAL FIXED EXPENSES--					\$484.42	
-----Total expenses per cwt \$35.32						
					=====	
RETURNS ABOVE DIRECT EXPENSES					\$607.33	
RETURNS ABOVE TOTAL SPECIFIED EXPENSES					\$122.90	

10 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  
 7.13 Mcf of fuel used in total

# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

-----Western Kansas - LOW YIELDS

Budget abstract

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Sunflower (Confectionary) - Western KS	cwt	\$40.91	17.00	\$695.47	\$695.47	_____
					-----	
--TOTAL INCOME--					\$695.47	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$23.50	_____
Custom Operations					\$0.00	_____
Diesel					\$18.76	_____
Fertilizers					\$37.39	_____
Herbicides					\$33.77	_____
Insecticides					\$17.90	_____
Irrigation energy (NG)					\$21.57	_____
Irrigation labor					\$5.44	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.81	_____
Repair & Maintenance					\$21.28	_____
Seeds					\$27.82	_____
Interest on operating capital		8% percent on direct expenses			\$9.46	_____
					-----	
--TOTAL DIRECT EXPENSES--					\$246.07	_____
-----Total direct expenses per cwt \$14.47						
<b>FIXED EXPENSES</b>						
Cash rent					\$178.00	_____
Capital recovery (depreciation + interest)					\$306.42	_____
					-----	
--TOTAL FIXED EXPENSES--					\$484.42	_____
-----Total expenses per cwt \$42.97						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					\$449.40	=====
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					-\$35.02	

8 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  
 5.71 Mcf of fuel used in total



# 2024 Irrigated Confectionary Sunflowers (Center-Pivot) Cost-Return Budget

-----Western Kansas - HIGH YIELDS

Budget abstract

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

Date: Nov-01-2023

item	unit	price	quantity	amount	Sub-total	your farm
<b>INCOME</b>						
Product						
Sunflower (Confectionary) - Western KS	cwt	\$40.91	26.00	\$1,063.66	\$1,063.66	_____
					-----	
<b>--TOTAL INCOME--</b>					<b>\$1,063.66</b>	_____
<b>DIRECT EXPENSES</b>						
Additional labor					\$0.70	_____
Crop consulting					\$7.57	_____
Crop insurance					\$23.50	_____
Custom Operations					\$0.00	_____
Diesel					\$18.76	_____
Fertilizers					\$57.19	_____
Herbicides					\$33.77	_____
Insecticides					\$17.90	_____
Irrigation energy (NG)					\$32.35	_____
Irrigation labor					\$8.16	_____
Miscellaneous					\$12.10	_____
Operator labor					\$8.81	_____
Repair & Maintenance					\$22.72	_____
Seeds					\$42.55	_____
Interest on operating capital		8% percent on direct expenses			\$11.44	_____
					-----	
<b>--TOTAL DIRECT EXPENSES--</b>					<b>\$297.52</b>	_____
-----Total direct expenses per cwt \$11.44						
<b>FIXED EXPENSES</b>						
Cash rent					\$178.00	_____
Capital recovery (depreciation + interest)					\$306.42	_____
					-----	
<b>--TOTAL FIXED EXPENSES--</b>					<b>\$484.42</b>	_____
-----Total expenses per cwt \$30.07						
<b>RETURNS ABOVE DIRECT EXPENSES</b>					<b>\$766.14</b>	=====
<b>RETURNS ABOVE TOTAL SPECIFIED EXPENSES</b>					<b>\$281.72</b>	=====

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