

TABLE 1. Acreage Summary, Otero County,
Actual 2023

BUDGET AREA.....	TULAROSA BASIN, OTERO COUNTY		
FARM SIZE.....	50 ACRES		
IRRIGATION TYPE.....	SPRINKLER		
NUMBER OF CROPS.....	3		
	WATER USE		
	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ACREAGE SUMMARY:			
ALFALFA ESTABLISHMENT	4.00 *	8	32
ALFALFA HAY	40.00	45	1,800
OAT HAY	5.00	18	90
SORGHUM/SUDAN	5.00 *	16	80
ROADS, DITCHES, HOMESTEAD	5.00		
TOTAL	50.00		2,002
ACRE FEET PER ACRE OF WATER RIGHTS			3.34

* DOUBLE-CROPPED

TABLE 2. Basic cost information for Tularosa Basin, Otero County,
Actual 2023

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$20.00
General & Irrigators	\$/hour	\$16.77
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.87
Seed:		
Alfalfa	\$/pound	\$4.12
Oats for Hay	\$/pound	\$0.70
Natural Gas (Gas NM)	\$/TCF	\$4.05
(service charge)	\$/month	\$10.00
Diesel fuel	\$/gallon	\$3.46
Gasoline	\$/gallon	\$2.98
Electricity (Otero Coop)	cents/KwHr	5.52
Employee Liability Insurance	\$/ \$1,000 wages	\$12.00
Employee Benefits	percent/wages	12.00%
Labor Downtime	percent	25.00%
Financial Rates:		
Operating Capital Interest Rate	percent	9.25%
Land Interest Rate	percent	8.15%
Equipment Interest Rate	percent	7.15%
Expected Inflation Rate	percent	1.82%
Land Taxes	\$300.00 /acre (full value)	\$3.22
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value)
Supervision Factors		
Field Crop-Irrigation	\$/acre	\$1.00
Field Crop-Equipment & General	\$/acre	\$0.50
Management Rate	percent	4.00%

TABLE 3. Overhead cost information for Tularosa Basin, Otero County,
Actual 2023

Item			
Electricity (Domestic & Shop)		\$83.20 per month	\$998
Telephone		\$89.60 per month	\$1,075
Accounting & Legal			\$192
Misc. Supplies & Hand Tools			\$666
Pickup and Auto			
miles	6,592	@ \$0.670 per mile	\$4,417
Insurance			
- general liability (non-employee)			\$307
- fire/theft			\$205
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$307
Dues, fees, publications			\$166
Farmstead Equipment			\$205
Total			\$14,548
Total per planted acre			\$323.29

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,
Actual 2023
Planting dates: September 1 - November 1

Planting dates: September 7 - November 7									
ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
<u>PURCHASED INPUTS</u>									
ALFALFA SEED	\$4.12	30 LBS	\$123.60						\$123.60
PUMP WATER*		8 AC. IN.							
SUBTOTAL			<u>\$123.60</u>						<u>\$123.60</u>
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$7.80	\$4.35	\$0.39	\$3.03	\$15.58	
PLOW	50 HP	1.05 HR		\$21.00	\$11.70	\$1.39	\$17.05	\$51.14	
DISC (2X)	50 HP	0.78 HR		\$15.60	\$8.69	\$1.47	\$12.28	\$38.04	
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$7.13	\$0.66	\$7.99	\$28.58	
DRILL	50 HP	0.21 HR		\$4.20	\$2.34	\$0.43	\$34.72	\$41.70	
IRRIGATE (4X)		2.00 HR		\$33.54	\$19.00	\$0.00	\$6.64	\$59.18	
SUBTOTAL		5.07 HR		\$94.94	\$53.21	\$4.34	\$81.72	\$234.22	
<u>OVERHEAD EXPENSES</u>									
DOWNTIME		0.77 HR		\$15.35					\$15.35
EMPLOYEE BENEFITS				\$11.39					\$11.39
FARM INSURANCE			\$1.14						\$1.14
SUPERVISION AND MANAGEMENT				\$17.85					\$17.85
SUBTOTAL		0.77 HR	\$1.14	\$44.59					\$45.73
TOTAL OPERATING EXPENSES		5.84 HR	\$124.74	\$139.53	\$53.21	\$4.34	\$81.72	\$403.55	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,
Actual 2023
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$288.00	6.00 TONS (STACKED)						\$1,728.00
TOTAL								\$1,728.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
FERT. (ALFALFA MIX)	\$0.16	250 LBS	\$40.00					\$40.00
INSECTICIDE	\$23.97	1 ACRE	\$23.97					\$23.97
WIRE	\$0.36	56 LBS	\$20.16					\$20.16
ESTABLISHMENT: Principal		10 YEARS					\$40.35	\$40.35
: Interest							\$18.52	\$18.52
PUMP WATER*		45 AC. IN.						
SUBTOTAL			\$84.13				\$58.87	\$143.01
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (11X)		5.50 HR		\$92.24	\$106.87	\$0.00	\$37.36	\$236.46
SUBTOTAL		5.50 HR		\$92.24	\$106.87	\$0.00	\$37.36	\$236.46
HARVEST OPERATIONS								
SWATHER (5X)	14 FT	0.80 HR		\$16.00	\$0.00	\$0.20	\$16.10	\$32.30
BALER, PTO (5X)	50 HP	1.05 HR		\$21.00	\$11.70	\$1.23	\$17.96	\$51.89
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$20.00	\$11.15	\$2.29	\$28.26	\$61.70
SUBTOTAL		2.85 HR		\$57.00	\$22.85	\$3.72	\$62.32	\$145.89
OVERHEAD EXPENSES								
DOWNTIME		0.71 HR		\$14.25				\$14.25
EMPLOYEE BENEFITS				\$17.91				\$17.91
FARM INSURANCE			\$1.79					\$1.79
LAND TAXES							\$3.22	\$3.22
SUPERVISION AND MANAGEMENT				\$76.05				\$76.05
OTHER EXPENSES			\$323.29					\$323.29
SUBTOTAL		0.71 HR	\$325.09	\$108.20			\$3.22	\$436.51
TOTAL OPERATING EXPENSES		9.06 HR	\$409.22	\$257.44	\$129.72	\$3.72	\$161.77	\$961.86
NET OPERATING PROFIT								\$766.14
INTEREST ON OPERATING CAPITAL		(\$71.00 @ 9.25%)						\$6.57
INTEREST ON EQUIPMENT INVESTMENT								\$65.19
RETURN TO LAND AND RISK								\$694.39

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$1,728.00	
VARIABLE OPERATING EXPENSES	\$549.22		
RETURN OVER VARIABLE EXPENSES	\$1,178.78	(GROSS MARGINS)	
FIXED EXPENSES	\$161.77		
NET FARM INCOME		\$1,017.01	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$257.44		
NET OPERATING PROFIT		\$759.57	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$65.19		
RETURN TO LAND AND RISK		\$694.39	

TABLE 8. Oats for hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,
Actual 2023
Planting dates: September 1 - November 1
Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD		TOTAL				
GROSS RETURNS								
OATS FOR HAY	\$200.00	3.00	TONS (STACKED)					\$600.00
TOTAL								\$600.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST		TOTAL		
OAT SEED	\$0.70	100 LBS	\$70.00					\$70.00
NITROGEN (N)	\$0.87	100 LBS	\$87.00					\$87.00
PUMP WATER*		18 AC. IN.						
SUBTOTAL			\$157.00					\$157.00
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$7.80	\$4.35	\$0.73	\$6.14	\$19.02
PLOW	50 HP	1.05 HR		\$21.00	\$11.70	\$1.39	\$17.05	\$51.14
DISC (2X)	50 HP	0.78 HR		\$15.60	\$8.69	\$1.47	\$12.28	\$38.04
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$7.13	\$0.66	\$7.99	\$28.58
DRILL	50 HP	0.21 HR		\$4.20	\$2.34	\$0.43	\$34.72	\$41.70
IRRIGATE (4X)		2.00 HR		\$33.54	\$42.75	\$0.00	\$14.94	\$91.23
SUBTOTAL		5.07 HR		\$94.94	\$76.96	\$4.68	\$93.13	\$269.71
HARVEST OPERATIONS								
SWATHER	14 FT	0.16 HR		\$3.20	\$0.00	\$0.04	\$3.22	\$6.46
BALER, PTO	50 HP	0.21 HR		\$4.20	\$2.34	\$0.25	\$3.59	\$10.38
BALE WAGON	50 HP	0.20 HR		\$4.00	\$2.23	\$0.46	\$5.65	\$12.34
SUBTOTAL		0.57 HR		\$11.40	\$4.57	\$0.74	\$12.46	\$29.18
OVERHEAD EXPENSES								
DOWNTIME		0.91 HR		\$18.20				\$18.20
EMPLOYEE BENEFITS				\$12.76				\$12.76
FARM INSURANCE			\$1.28					\$1.28
LAND TAXES							\$1.61	\$1.61
SUPERVISION AND MANAGEMENT				\$27.82				\$27.82
OTHER EXPENSES			\$161.65					\$161.65
SUBTOTAL		0.91 HR	\$162.92	\$58.78			\$1.61	\$223.31
TOTAL OPERATING EXPENSES		6.55 HR	\$319.92	\$165.12	\$81.53	\$5.42	\$107.20	\$679.20
NET OPERATING PROFIT								(\$79.20)
INTEREST ON OPERATING CAPITAL		(\$99.35 @ 9.25%)						\$9.19
INTEREST ON EQUIPMENT INVESTMENT								\$50.68
RETURN TO LAND AND RISK								(\$139.07)

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$600.00	
VARIABLE OPERATING EXPENSES	\$416.07		
RETURN OVER VARIABLE EXPENSES		\$183.93	(GROSS MARGINS)
FIXED EXPENSES	\$107.20		
NET FARM INCOME		\$76.73	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$165.12		
NET OPERATING PROFIT		(\$88.39)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$50.68		
RETURN TO LAND AND RISK		(\$139.07)	

TABLE 9. Sorghum-sudan hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,
Actual 2023
Planting dates: May 1 - June 1
Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
SORGHUM/SUDAN HAY	\$200.00	5.00 TONS (STACKED)	\$1,000.00
TOTAL			\$1,000.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$1.04	50 LBS	\$52.00		\$52.00
NITROGEN (N)	\$0.87	100 LBS	\$87.00		\$87.00
PUMP WATER*		16 AC. IN.			
SUBTOTAL			\$139.00		\$139.00

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$7.80	\$4.35	\$0.73	\$6.14	\$19.02
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$7.13	\$0.66	\$7.99	\$28.58
DRILL	50 HP	0.21 HR		\$4.20	\$2.34	\$0.43	\$34.72	\$41.70
IRRIGATE (4X)		2.00 HR		\$33.54	\$38.00	\$0.00	\$13.28	\$84.82
SUBTOTAL		3.24 HR		\$58.34	\$51.82	\$1.82	\$62.14	\$174.12

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER (2X)	14 FT	0.32 HR		\$6.40	\$0.00	\$0.08	\$6.44	\$12.92
BALER, PTO (2X)	50 HP	0.42 HR		\$8.40	\$4.68	\$0.49	\$7.18	\$20.76
BALE WAGON (2X)	50 HP	0.40 HR		\$8.00	\$4.46	\$0.92	\$11.31	\$24.68
SUBTOTAL		1.14 HR		\$22.80	\$9.14	\$1.49	\$24.93	\$58.35

OVERHEAD EXPENSES	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME		0.60 HR		\$11.90				\$11.90
EMPLOYEE BENEFITS				\$9.74				\$9.74
FARM INSURANCE			\$0.97					\$0.97
LAND TAXES							\$1.61	\$1.61
SUPERVISION AND MANAGEMENT				\$43.19				\$43.19
OTHER EXPENSES			\$161.65					\$161.65
SUBTOTAL		0.60 HR	\$162.62	\$64.83			\$1.61	\$229.06

TOTAL OPERATING EXPENSES		4.98 HR	\$301.62	\$145.97	\$60.96	\$3.31	\$88.68	\$600.53
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NET OPERATING PROFIT								\$399.47
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INTEREST ON OPERATING CAPITAL	(\$83.80	@	9.25%)			\$7.75
INTEREST ON EQUIPMENT INVESTMENT								\$45.43

RETURN TO LAND AND RISK								\$346.29
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* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$1,000.00	
VARIABLE OPERATING EXPENSES	\$373.64		
RETURN OVER VARIABLE EXPENSES	\$626.36	(GROSS MARGINS)	
FIXED EXPENSES	\$88.68		
NET FARM INCOME	\$537.68	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$145.97		
NET OPERATING PROFIT	\$391.72	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$45.43		
RETURN TO LAND AND RISK	\$346.29		

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County,
Actual 2023

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.00	3.00	5.00
PRIMARY PRICE		\$288.00	\$200.00	\$200.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$1,728.00	\$600.00	\$1,000.00
CASH OPERATING EXPENSES				
SEED	\$123.60		\$70.00	\$52.00
FERTILIZER		\$40.00	\$87.00	\$87.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$34.22	\$22.85	\$38.79	\$22.96
FUEL-IRRIGATION	\$19.00	\$106.87	\$42.75	\$38.00
REPAIRS	\$4.34	\$3.72	\$5.42	\$3.31
CUSTOM CHARGES				
LAND TAXES		\$3.22	\$1.61	\$1.61
OTHER EXPENSES	\$1.14	\$325.09	\$162.92	\$162.62
TOTAL CASH EXPENSES	\$182.30	\$545.87	\$408.49	\$367.50
RETURN OVER CASH EXPENSES	(\$182.30)	\$1,182.13	\$191.51	\$632.50
FIXED EXPENSES	\$81.72	\$158.55	\$105.59	\$87.07
TOTAL EXPENSES	\$264.02	\$704.42	\$514.08	\$454.56
NET FARM INCOME	(\$264.02)	\$1,023.58	\$85.92	\$545.44
LABOR AND MANAGEMENT COSTS	\$139.53	\$257.44	\$165.12	\$145.97
NET OPERATING PROFIT	(\$403.55)	\$766.14	(\$79.20)	\$399.47
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$6.57	\$9.19	\$7.75
INTEREST ON EQUIPMENT INVESTMENT		\$65.19	\$50.68	\$45.43
TOTAL CAPITAL COSTS	\$0.00	\$71.75	\$59.87	\$53.18
RETURN TO LAND AND RISK	(\$403.55)	\$694.39	(\$139.07)	\$346.29

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,
Actual 2023

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$69,120
OATS FOR HAY	5.00 ACRES	
CROP		\$3,000
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$5,000
GROSS RETURN		<u>\$77,120</u>
CASH OPERATING EXPENSES		
SEED		\$1,104
FERTILIZER		\$2,470
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,359
FUEL-IRRIGATION		\$4,754
REPAIRS		\$210
CUSTOM CHARGES		\$0
LAND TAXES		\$145
OTHER EXPENSES		\$14,636
TOTAL CASH EXPENSES		<u>\$26,444</u>
RETURN OVER CASH EXPENSES		\$50,676
FIXED EXPENSES		\$5,583
TOTAL EXPENSES		\$32,027
NET FARM INCOME		\$45,093
LABOR AND MANAGEMENT COSTS		\$12,411
NET OPERATING PROFIT		\$32,682
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$347
INTEREST ON EQUIPMENT INVESTMENT		\$3,088
TOTAL CAPITAL COSTS		<u>\$3,435</u>
RETURN TO LAND AND RISK		<u>\$29,247</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$28,611	49.31%
\$900 /ACRE	\$28,430	42.85%
\$1,100 /ACRE	\$28,248	37.88%
\$1,300 /ACRE	\$28,066	33.95%
\$1,500 /ACRE	\$27,885	30.75%
\$1,700 /ACRE	\$27,703	28.11%
\$1,900 /ACRE	\$27,522	25.88%
\$2,100 /ACRE	\$27,340	23.98%

* RETURN TO LAND AND RISK MINUS (INTEREST RATE TIMES LAND VALUE TIMES ACREAGE)

** NET OPERATING PROFIT DIVIDED BY (MACHINERY AND EQUIPMENT VALUE PLUS LAND VALUE)