

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			
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
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	\$16.60
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.83
Seed:		
Alfalfa	\$/pound	\$3.05
Oats for Hay	\$/pound	\$0.34
Natural Gas (Gas NM) (service charge)		
	\$/MCF	\$2.71
	\$/month	\$10.00
Diesel fuel	\$/gallon	\$4.33
Gasoline	\$/gallon	\$2.60
Electricity (Otero Coop)	cents/KwHr	9.79
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	7.25%
Land Interest Rate	percent	9.15%
Equipment Interest Rate	percent	8.25%
Expected Inflation Rate	percent	4.25%
Land Taxes	\$300.00 /acre (full value)	\$3.22
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value) \$24.53
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 @	\$0.665 per mile	\$4,384
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			\$14,515
Total per planted acre			\$322.56



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

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<b>PURCHASED INPUTS</b>									
ALFALFA SEED	\$4.50	30 LBS	\$135.00						\$135.00
PUMP WATER*		8 AC. IN.							
SUBTOTAL			\$135.00						\$135.00
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$7.80	\$3.79	\$0.39	\$3.03	\$15.02	
PLOW	50 HP	1.05 HR		\$21.00	\$10.21	\$1.39	\$17.05	\$49.65	
DISC (2X)	50 HP	0.78 HR		\$15.60	\$7.58	\$1.47	\$12.28	\$36.93	
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$6.22	\$0.66	\$7.99	\$27.67	
DRILL	50 HP	0.21 HR		\$4.20	\$2.04	\$0.43	\$34.72	\$41.40	
IRRIGATE (4X)		2.00 HR		\$33.20	\$12.83	\$0.00	\$6.64	\$52.67	
SUBTOTAL		5.07 HR		\$94.60	\$42.69	\$4.34	\$81.72	\$223.35	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.77 HR		\$15.35				\$15.35	
EMPLOYEE BENEFITS				\$11.35				\$11.35	
FARM INSURANCE			\$1.14					\$1.14	
SUPERVISION AND MANAGEMENT				\$17.87				\$17.87	
SUBTOTAL		0.77 HR	\$1.14	\$44.57				\$45.71	
<b>TOTAL OPERATING EXPENSES</b>		5.84 HR	\$136.14	\$139.17	\$42.69	\$4.34	\$81.72	\$404.05	

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	
<b>GROSS RETURNS</b>									
ALFALFA HAY	\$340.00	6.00 TONS (STACKED)						\$2,040.00	
<b>TOTAL</b>								<b>\$2,040.00</b>	
<b>PURCHASED INPUTS</b>									
	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						\$40.41	\$40.41
: Interest								\$14.19	\$14.19
PUMP WATER*		45 AC. IN.							
<b>SUBTOTAL</b>			<b>\$84.13</b>					<b>\$54.60</b>	<b>\$138.73</b>
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (11X)		5.50 HR		\$91.30	\$72.18	\$0.00	\$37.36	\$200.84	
<b>SUBTOTAL</b>			<b>5.50 HR</b>	<b>\$91.30</b>	<b>\$72.18</b>	<b>\$0.00</b>	<b>\$37.36</b>	<b>\$200.84</b>	
<b>HARVEST OPERATIONS</b>									
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	\$10.21	\$1.23	\$17.96	\$50.40	
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$20.00	\$9.72	\$2.29	\$28.26	\$60.28	
<b>SUBTOTAL</b>			<b>2.85 HR</b>	<b>\$57.00</b>	<b>\$19.93</b>	<b>\$3.72</b>	<b>\$62.32</b>	<b>\$142.97</b>	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.71 HR		\$14.25				\$14.25	
EMPLOYEE BENEFITS				\$17.80				\$17.80	
FARM INSURANCE			\$1.78					\$1.78	
LAND TAXES							\$3.22	\$3.22	
SUPERVISION AND MANAGEMENT				\$88.53				\$88.53	
OTHER EXPENSES			\$322.56					\$322.56	
<b>SUBTOTAL</b>			<b>0.71 HR</b>	<b>\$324.34</b>	<b>\$120.57</b>		<b>\$3.22</b>	<b>\$448.13</b>	
<b>TOTAL OPERATING EXPENSES</b>			<b>9.06 HR</b>	<b>\$408.48</b>	<b>\$268.87</b>	<b>\$92.12</b>	<b>\$3.72</b>	<b>\$157.49</b>	<b>\$930.68</b>
<b>NET OPERATING PROFIT</b>								<b>\$1,109.32</b>	
INTEREST ON OPERATING CAPITAL		(	\$62.08	@	7.25%	)		\$4.50	
INTEREST ON EQUIPMENT INVESTMENT								\$75.22	
<b>RETURN TO LAND AND RISK</b>								<b>\$1,029.61</b>	

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

BUDGET SUMMARY		
GROSS RETURN		\$2,040.00
VARIABLE OPERATING EXPENSES	\$508.81	
RETURN OVER VARIABLE EXPENSES	\$1,531.19	(GROSS MARGINS)
FIXED EXPENSES	\$157.49	
NET FARM INCOME	\$1,373.69	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$268.87	
NET OPERATING PROFIT	\$1,104.82	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$75.22	
RETURN TO LAND AND RISK		\$1,029.61

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
<b>GROSS RETURNS</b>									
OATS FOR HAY	\$240.00	3.00 TONS (STACKED)							\$720.00
<b>TOTAL</b>								<b>\$720.00</b>	
<hr/>									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
OAT SEED	\$0.34	100 LBS	\$34.00					\$34.00	
NITROGEN (N)	\$0.83	100 LBS	\$83.00					\$83.00	
PUMP WATER*		18 AC. IN.							
<b>SUBTOTAL</b>			<b>\$117.00</b>					<b>\$117.00</b>	
<hr/>									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$7.80	\$3.79	\$0.73	\$6.14	\$18.47	
PLOW	50 HP	1.05 HR		\$21.00	\$10.21	\$1.39	\$17.05	\$49.65	
DISC (2X)	50 HP	0.78 HR		\$15.60	\$7.58	\$1.47	\$12.28	\$36.93	
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$6.22	\$0.66	\$7.99	\$27.67	
DRILL	50 HP	0.21 HR		\$4.20	\$2.04	\$0.43	\$34.72	\$41.40	
IRRIGATE (4X)	50 HP	2.00 HR		\$33.20	\$28.87	\$0.00	\$14.94	\$77.02	
<b>SUBTOTAL</b>		<b>5.07 HR</b>		<b>\$94.60</b>	<b>\$58.73</b>	<b>\$4.68</b>	<b>\$93.13</b>	<b>\$251.13</b>	
<hr/>									
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	\$2.04	\$0.25	\$3.59	\$10.08	
BALE WAGON	50 HP	0.20 HR		\$4.00	\$1.94	\$0.46	\$5.65	\$12.06	
<b>SUBTOTAL</b>		<b>0.57 HR</b>		<b>\$11.40</b>	<b>\$3.99</b>	<b>\$0.74</b>	<b>\$12.46</b>	<b>\$28.59</b>	
<hr/>									
OVERHEAD EXPENSES									
DOWNTIME		0.91 HR		\$18.20				\$18.20	
EMPLOYEE BENEFITS				\$12.72				\$12.72	
FARM INSURANCE			\$1.27					\$1.27	
LAND TAXES							\$1.61	\$1.61	
SUPERVISION AND MANAGEMENT				\$32.62				\$32.62	
OTHER EXPENSES			\$161.28					\$161.28	
<b>SUBTOTAL</b>		<b>0.91 HR</b>		<b>\$162.55</b>	<b>\$63.54</b>		<b>\$1.61</b>	<b>\$227.70</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>6.55 HR</b>		<b>\$279.55</b>	<b>\$169.54</b>	<b>\$62.71</b>	<b>\$5.42</b>	<b>\$624.43</b>	
<b>NET OPERATING PROFIT</b>								<b>\$95.57</b>	
INTEREST ON OPERATING CAPITAL		(	\$74.75	@	7.25%	)		\$5.42	
INTEREST ON EQUIPMENT INVESTMENT								\$58.47	
<b>RETURN TO LAND AND RISK</b>								<b>\$31.68</b>	

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

**BUDGET SUMMARY**

GROSS RETURN		\$720.00	
VARIABLE OPERATING EXPENSES	\$353.11		
RETURN OVER VARIABLE EXPENSES		\$366.89	(GROSS MARGINS)
FIXED EXPENSES	\$107.20		
NET FARM INCOME		\$259.69	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$169.54		
NET OPERATING PROFIT		\$90.15	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$58.47		
RETURN TO LAND AND RISK		\$31.68	

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
<b>GROSS RETURNS</b>								
SORGHUM/SUDAN HAY	\$240.00	5.00 TONS (STACKED)						\$1,200.00
<b>TOTAL</b>								<b>\$1,200.00</b>
<b>PURCHASED INPUTS</b>								
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$1.04	50 LBS	\$52.00					\$52.00
NITROGEN (N)	\$0.83	100 LBS	\$83.00					\$83.00
PUMP WATER*		16 AC. IN.						
<b>SUBTOTAL</b>								<b>\$135.00</b>
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$7.80	\$3.79	\$0.73	\$6.14	\$18.47
FLOAT (2X)	50 HP	0.64 HR		\$12.80	\$6.22	\$0.66	\$7.99	\$27.67
DRILL	50 HP	0.21 HR		\$4.20	\$2.04	\$0.43	\$34.72	\$41.40
IRRIGATE (4X)		2.00 HR		\$33.20	\$25.67	\$0.00	\$13.28	\$72.15
<b>SUBTOTAL</b>								<b>\$159.68</b>
<b>HARVEST OPERATIONS</b>								
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	\$4.08	\$0.49	\$7.18	\$20.16
BALE WAGON (2X)	50 HP	0.40 HR		\$8.00	\$3.89	\$0.92	\$11.31	\$24.11
<b>SUBTOTAL</b>								<b>\$57.19</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.60 HR		\$11.90				\$11.90
EMPLOYEE BENEFITS				\$9.70				\$9.70
FARM INSURANCE			\$0.97				\$0.97	\$0.97
LAND TAXES						\$1.61		\$1.61
SUPERVISION AND MANAGEMENT				\$51.19				\$51.19
OTHER EXPENSES			\$161.28					\$161.28
<b>SUBTOTAL</b>								<b>\$236.65</b>
<b>TOTAL OPERATING EXPENSES</b>								<b>\$588.52</b>
<b>NET OPERATING PROFIT</b>								<b>\$611.48</b>
INTEREST ON OPERATING CAPITAL		( \$78.18 @	7.25%	)				\$5.67
INTEREST ON EQUIPMENT INVESTMENT								\$52.42
<b>RETURN TO LAND AND RISK</b>								<b>\$553.39</b>

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

GROSS RETURN		\$1,200.00	
VARIABLE OPERATING EXPENSES	\$351.93		
RETURN OVER VARIABLE EXPENSES	\$848.07	(GROSS MARGINS)	
FIXED EXPENSES	\$88.68		
NET FARM INCOME	\$759.40	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$153.59		
NET OPERATING PROFIT	\$605.81	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$52.42		
RETURN TO LAND AND RISK	\$553.39		

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		\$340.00	\$240.00	\$240.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$2,040.00	\$720.00	\$1,200.00
CASH OPERATING EXPENSES				
SEED	\$135.00		\$34.00	\$52.00
FERTILIZER		\$40.00	\$83.00	\$83.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$29.85	\$19.93	\$33.84	\$20.03
FUEL-IRRIGATION	\$12.83	\$72.18	\$28.87	\$25.67
REPAIRS	\$4.34	\$3.72	\$5.42	\$3.31
CUSTOM CHARGES				
LAND TAXES		\$3.22	\$1.61	\$1.61
OTHER EXPENSES	\$1.14	\$324.34	\$162.55	\$162.25
TOTAL CASH EXPENSES	\$183.16	\$507.53	\$349.30	\$347.87
RETURN OVER CASH EXPENSES	(\$183.16)	\$1,532.47	\$370.70	\$852.13
FIXED EXPENSES	\$81.72	\$154.27	\$105.59	\$87.07
TOTAL EXPENSES	\$264.88	\$661.80	\$454.89	\$434.93
NET FARM INCOME	(\$264.88)	\$1,378.20	\$265.11	\$765.07
LABOR AND MANAGEMENT COSTS	\$139.17	\$268.87	\$169.54	\$153.59
NET OPERATING PROFIT	(\$404.05)	\$1,109.32	\$95.57	\$611.48
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$4.50	\$5.42	\$5.67
INTEREST ON EQUIPMENT INVESTMENT		\$75.22	\$58.47	\$52.42
TOTAL CAPITAL COSTS	\$0.00	\$79.72	\$63.89	\$58.09
RETURN TO LAND AND RISK	(\$404.05)	\$1,029.61	\$31.68	\$553.39

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

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$81,600
OATS FOR HAY	5.00 ACRES	
CROP		\$3,600
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$6,000
GROSS RETURN		<u>\$91,200</u>
CASH OPERATING EXPENSES		
SEED		\$970
FERTILIZER		\$2,430
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,186
FUEL-IRRIGATION		\$3,211
REPAIRS		\$210
CUSTOM CHARGES		\$0
LAND TAXES		\$145
OTHER EXPENSES		\$14,602
TOTAL CASH EXPENSES		<u>\$24,520</u>
RETURN OVER CASH EXPENSES		\$66,680
FIXED EXPENSES		\$5,409
TOTAL EXPENSES		\$29,929
NET FARM INCOME		\$61,271
LABOR AND MANAGEMENT COSTS		\$12,927
NET OPERATING PROFIT		\$48,344
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$235
INTEREST ON EQUIPMENT INVESTMENT		\$3,563
TOTAL CAPITAL COSTS		<u>\$3,799</u>
RETURN TO LAND AND RISK		<u>\$44,545</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$43,057	72.94%
\$900 /ACRE	\$42,632	63.38%
\$1,100 /ACRE	\$42,207	56.03%
\$1,300 /ACRE	\$41,782	50.21%
\$1,500 /ACRE	\$41,357	45.49%
\$1,700 /ACRE	\$40,932	41.58%
\$1,900 /ACRE	\$40,507	38.28%
\$2,100 /ACRE	\$40,082	35.48%

\* 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)