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

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE AC.IN. PER AC.	WATER USE 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		$16.77
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	$/$1,000	(Assessed	$32.21
	- R		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	@	$0.670	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

ITEM	PRICE	QUANTITY	PURCHASED INPUTS				TOTAL
PURCHASED INPUTS							
ALFALFA SEED	$4.12	30 LBS	$123.60				$123.60
PUMP WATER*		8 AC. IN.					
SUBTOTAL			$123.60				$123.60

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
OVERHEAD EXPENSES								
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
SUBOTOTAL		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								
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								
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
NET OPERATING PROFIT								$399.47
INTEREST ON OPERATING CAPITAL		($83.80 @	9.25%)					$7.75
INTEREST ON EQUIPMENT INVESTMENT								$45.43
RETURN TO LAND AND RISK								$346.29

* 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					$77,120
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				$26,444	
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				$3,435	
RETURN TO LAND AND RISK					$29,247

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)