

TABLE 1. Acreage Summary, Otero County,  
Projected 2017

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,  
Projected 2017

Item		
<b>Labor Wage Rate:</b>		
Equipment operators	\$/hour	\$7.50
General & Irrigators	\$/hour	\$7.50
<b>Purchased Inputs:</b>		
<b>Fertilizer:</b>		
Nitrogen (N)	\$/pound	\$0.22
<b>Seed:</b>		
Alfalfa	\$/pound	\$3.05
Oats for Hay	\$/pound	\$0.34
<b>Natural Gas (Gas NM) (service charge)</b>		
	\$/MCF	\$4.01
	\$/month	\$10.00
Diesel fuel	\$/gallon	\$2.35
Gasoline	\$/gallon	\$2.10
Electricity (Otero Coop)	cents/KwHr	7.34
Employee Liability Insurance	\$/ \$1,000 wages	\$12.00
Employee Benefits	percent/wages	12.00%
Labor Downtime	percent	25.00%
<b>Financial Rates:</b>		
Operating Capital Interest Rate	percent	5.50%
Land Interest Rate	percent	5.00%
Equipment Interest Rate	percent	5.50%
Expected Inflation Rate	percent	3.00%
Land Taxes	\$300.00 /acre (full value)	\$3.22
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value) \$32.16 \$24.48
<b>Supervision Factors</b>		
Field Crop-Irrigation	\$/acre	\$1.00
Field Crop-Equipment & General	\$/acre	\$0.50
<b>Management Rate</b>	percent	4.00%

TABLE 3. Overhead cost information for Tularosa Basin, Otero County,  
Projected 2017

Item			
Electricity (Domestic & Shop)		\$78.65 per month	\$944
Telephone		\$84.70 per month	\$1,016
Accounting & Legal			\$182
Misc. Supplies & Hand Tools			\$629
Pickup and Auto			
miles	6,232	@ \$0.500 per mile	\$3,116
<b>Insurance</b>			
- general liability (non-employee)			\$290
- fire/theft			\$194
<b>Property Taxes</b>			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$290
Dues, fees, publications			\$157
Farmstead Equipment			\$194
Total			\$13,022
Total per planted acre			\$289.38

TABLE 4 Pumping costs and data for irrigation wells, Tularosa Basin, Chaco County, Pinalind 2017

DELIVERY PSL SPRINKLER		DEPTH CHARACTERISTICS	
	40	STATIC	145
		DOWN-HOLE	35
		TOTAL HEAD	180
		CASING	275
<b>CALLING PER MINUTE (GPM)</b>			
	300		
<b>WORK HORSEPOWER</b>			
	21		
<b>EFFICIENCY FACTOR</b>			
	0.200		
	0.151		
	0.151		
	0.180		
<b>FUEL COST PER HOUR</b>			
	2.34	CENT/WHY	
		NATURAL GAS \$4.01 SMCY	
		LP GAS \$3.62 SCGL	
		DIESEL \$2.35 SGAL	
<b>PUMPING COSTS</b>			
<b>ELECTRICAL WELL:</b>			
		COST PER HOUR	\$3.83
		COST PER ACRE INCH	\$3.83
<b>NATURAL GAS WELL:</b>			
		COST PER HOUR	\$1.08
		COST PER ACRE INCH	\$2.35
<b>BUTANE WELL:</b>			
		COST PER HOUR	\$2.38
		COST PER ACRE INCH	\$3.59
<b>DIESEL WELL:</b>			
		COST PER HOUR	\$4.36
		COST PER ACRE INCH	\$7.34

TABLE 5 Equipment summary for a 30 acre packline farm, Tularosa Basin, Chaco County, Pinalind 2017

EQUIPMENT	ITEM #	SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	FUEL OIL		REPAIR FUEL OIL PER HR	REPAIR PER HR		FIXED COSTS		
						LITER/ACR	PER HR		PER HR	DEPRECIATION	TAXES	TOTAL PER HR	
TRACTOR		50 HP	122	1	\$7,500	5968	\$132	\$7.50	\$1.08	\$859	\$56	\$8.16	
BALDRINGSON PFD		43	1	\$1,500	805			\$860	\$56	\$2,550			
BALER PFD		2 WBE	45	1	\$1,800	37		\$5.15	\$35	\$41	\$3.44		
FLOW		8 FT	4	1	\$205			\$2.51	\$3	\$3	\$3.87		
FLAT		8 FT	9	1	\$405			\$5.01	\$40	\$3	\$4.82		
DISC		8 FT	12	1	\$705			\$11	\$83	\$3	\$8.08		
SPRINKLER		12 FT	3,020	1	\$2,500			\$3.00	\$313	\$27	\$5.12		
DRILL		14 FT	7	1	\$2,200			\$3	\$463	\$24	\$15.78		
SWATHER		14 FT	34	1	\$2,100			\$10	\$705	\$75	\$23.53		
NATURAL GAS WELL		3,020	1	\$15,000	\$4,700			\$1.56	\$1,042	\$140	\$4.51		
					\$31,275	\$4,957	\$219			\$4,795	\$302		

USAGE LIST

EQUIPMENT LIST																
EQUIP	NEW	USED	YEARS	EQUIP VALUE	MAX LBS	FUEL USE/HR	LUBE OIL USE	ACUM OIL	INTEREST %	ALFALFA		GATS	SQR&M FOR	PER ACRE		
										EST.	DEV.				DEV.	DEV.
TRACTOR	50 HP	1795.00	7000.00	20.00	1.00	880.00	3.40	0.10	1628.70	15.00	464.31	3.07	2.65	3.48	2.06	18.88
BALDRINGSON PFD		1500.00	1500.00	20.00	1.00	800.00			258.00	6.00	460.00	0.00	1.00	0.20	0.4	1.60
BALER PFD	2 WBE	7700.00	1500.00	20.00	1.00	200.00			812.70	18.00	271.75	0.00	1.00	0.21	0.42	1.68
FLOW		500.00	200.00	15.00	1.00	300.00			87.20	16.00	13.75	1.00	0.00	0.00	0.00	1.00
FLAT	8 FT	650.00	150.00	15.00	1.00	200.00			134.40	15.00	16.50	0.04	0.00	0.04	0.04	1.02
DISC	8 FT	1400.00	700.00	15.00	1.00	300.00			199.68	16.00	38.50	1.17	0.00	1.17	0.36	2.73
SPRINKLER		2000.00	2000.00	15.00	1.00	874.00			4326.26	15.00	127.00	12.07	87.89	27.15	24.13889	131.24
DRILL	12 FT	4400.00	2200.00	10.00	0.00	100.00			38.22	13.00	121.00	0.21	0.00	0.21	0.21	0.83
SWATHER	14 FT	1400.00	200.00	10.00	0.00	200.00			447.20	13.00	380.00	0.00	0.00	0.16	0.32	1.28
NATURAL GAS WELL		2000.00	1300.00	25.00	0.00	874.00			4326.26	15.00	718.38	12.07	87.89	27.15	24.13889	131.24

INTEREST PROPORTION

ALFALFA	GATS	SQR&M	FOR	BLDN	PER ACRE
DEV	DEV	DEV	DEV	DEV	
4.31	14.52	8.35			
0.22	4.69	1.49			
4.52	9.39	1.97			
0.29	0.98	4.60			
0.00	1.19	1.19			
0.05	3.05	1.20			
3.05	1.24	1.10			
0.00	0.54	6.64			
6.35	1.79	3.58			
15.13	6.44	1.72			
\$1.01	\$6.02	\$2.84			

ALFALFA ESTABLISHMENT		ACRES		4		PUMP WATER		8.00	
						ACCOMPLISHMENT			
MACHINE	POWER UNITS	TIMES OVER	RATE	TOTAL	CUSTOM				
DISC	50HP	1.00	0.39	0.39					
FLOW	50HP	1.00	1.05	1.05					
DISC (20)	50HP	2.00	0.38	0.78					
FLAT (20)	50HP	2.00	0.32	0.64					
DRILL	50HP	1.00	0.21	0.21					
BRIGATE (40)	400	4.00	1.51	12.07					

ALFALFA HARV		ACRES		40		PUMP WATER		40.00	
						ACCOMPLISHMENT			
MACHINE	POWER UNITS	TIMES OVER	RATE	TOTAL	CUSTOM				
BRIGATE (10)	400	11.00	1.51	67.88					

GATS FOR HARV		ACRES		5		PUMP WATER		18.00	
						ACCOMPLISHMENT			
MACHINE	POWER UNITS	TIMES OVER	RATE	TOTAL	CUSTOM				
DISC	50HP	1.00	0.39	0.39					
FLOW	50HP	1.00	1.05	1.05					
DISC (20)	50HP	2.00	0.39	0.78					
FLAT (20)	50HP	2.00	0.32	0.64					
DRILL	50HP	1.00	0.21	0.21					
BRIGATE (40)	400	4.00	1.51	27.15					

SQR&M		ACRES		5		PUMP WATER		18.00	
						ACCOMPLISHMENT			
MACHINE	POWER UNITS	TIMES OVER	RATE	TOTAL	CUSTOM				
DISC	50HP	1.00	0.39	0.39					
FLAT (20)	50HP	2.00	0.32	0.64					
DRILL	50HP	1.00	0.21	0.21					
BRIGATE (40)	400	4.00	1.51	24.14					

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Year of Use	1	2	3	4	5	6	7	8	9
0	0.00060	0.00030	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200
10	0.00060	0.00030	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200
20	0.00060	0.00030	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
30	0.00030	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
40	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
50	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000
60	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000
70	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000
80	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000
90	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000	0.02000
100	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000	0.02000
1200	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000	0.02000
1400	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000	0.02000	0.02000	0.02000
1600	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
1800	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
2000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
2500	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
3000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
4000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
5000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
6000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
7000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000
8000	0.00020	0.00020	0.00020	0.00040	0.00140	0.00340	0.00740	0.01200	0.02000

Based on unpublished data of Dr. R. Hart, Department of Agricultural Engineering, University of Illinois.  
 Based on "Agricultural Machinery Data" in Agricultural Engineers' Yearbook, 1983.

- 1. harvesters
- 2. balers, combine, forage harvesters, windrows, pickups
- 3. mowers, hay, disk, mechanical press, chisel, ted, rollers, new cultivators, base alone
- 4. harrows, weep, tires, roller, disk, drag, ridge, v-edge, roller, ted, straw
- 5. tillage, cotton, potato, cutter-strippers, corn shanks, corn heads, large equipment, rotary mowers, slash choppers, feed rollers
- 6. silage, cutter, mower
- 7. field or engine, trencher, grader
- 8. planters, drills, seeding equipment, mechanical sprayers
- 9. harrow, disc, harrow equipment

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,  
 Projected 2017  
 Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
ALFALFA SEED	\$3.05	30 LBS	\$91.50					\$91.50
PUMP WATER*		8 AC. IN.						
SUBTOTAL			\$91.50					\$91.50
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.93	\$3.06	\$0.42	\$3.23	\$9.64
PLOW	50 HP	1.05 HR		\$7.88	\$8.25	\$1.46	\$17.57	\$35.15
DISC (2X)	50 HP	0.78 HR		\$5.85	\$6.13	\$1.52	\$12.67	\$26.16
FLOAT (2X)	50 HP	0.64 HR		\$4.80	\$5.03	\$0.70	\$8.31	\$18.83
DRILL	50 HP	0.21 HR		\$1.58	\$1.65	\$0.45	\$34.83	\$38.50
IRRIGATE (4X)		2.00 HR		\$15.00	\$18.81	\$0.00	\$6.64	\$40.45
SUBTOTAL		5.07 HR		\$38.03	\$42.93	\$4.54	\$83.24	\$168.73
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.77 HR		\$5.76				\$5.76
EMPLOYEE BENEFITS				\$4.56				\$4.56
FARM INSURANCE			\$0.46					\$0.46
SUPERVISION AND MANAGEMENT				\$13.94				\$13.94
SUBTOTAL		0.77 HR	\$0.46	\$24.26				\$24.72
<u>TOTAL OPERATING EXPENSES</u>		5.84 HR	\$91.96	\$62.29	\$42.93	\$4.54	\$83.24	\$284.95

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2017  
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
ALFALFA HAY	\$175.00	6.00 TONS (STACKED)						\$1,050.00
<b>TOTAL</b>								<b>\$1,050.00</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					\$28.50	\$28.50
: Interest							\$6.59	\$6.59
PUMP WATER*		45 AC. IN.						
<b>SUBTOTAL</b>			<b>\$84.13</b>				<b>\$35.08</b>	<b>\$119.22</b>
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (11X)		5.50 HR		\$41.25	\$105.83	\$0.00	\$37.35	\$184.43
<b>SUBTOTAL</b>		5.50 HR		\$41.25	\$105.83	\$0.00	\$37.35	\$184.43
<b>HARVEST OPERATIONS</b>								
SWATHER (5X)	14 FT	0.80 HR		\$6.00	\$0.00	\$0.22	\$18.02	\$24.25
BALER, PTO (5X)	50 HP	1.05 HR		\$7.88	\$8.25	\$1.29	\$18.48	\$35.89
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$7.50	\$7.85	\$2.36	\$28.76	\$46.47
<b>SUBTOTAL</b>		2.85 HR		\$21.38	\$16.10	\$3.88	\$65.26	\$106.61
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.71 HR		\$5.34				\$5.34
EMPLOYEE BENEFITS				\$7.52				\$7.52
FARM INSURANCE			\$0.75					\$0.75
LAND TAXES							\$3.22	\$3.22
SUPERVISION AND MANAGEMENT				\$48.93				\$48.93
OTHER EXPENSES			\$289.38					\$289.38
<b>SUBTOTAL</b>		0.71 HR		\$290.13	\$61.78		\$3.22	\$355.13
<b>TOTAL OPERATING EXPENSES</b>		9.06 HR		\$374.26	\$124.41	\$121.93	\$3.88	\$765.39
<b>NET OPERATING PROFIT</b>								<b>\$284.61</b>
INTEREST ON OPERATING CAPITAL		( \$70.19 @	5.50%	)				\$3.86
INTEREST ON EQUIPMENT INVESTMENT								\$51.61
<b>RETURN TO LAND AND RISK</b>								<b>\$229.14</b>

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

**BUDGET SUMMARY**

GROSS RETURN		\$1,050.00	
VARIABLE OPERATING EXPENSES	\$503.93		
RETURN OVER VARIABLE EXPENSES		\$546.07	(GROSS MARGINS)
FIXED EXPENSES	\$140.91		
NET FARM INCOME		\$405.16	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$124.41		
NET OPERATING PROFIT		\$280.75	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$51.61		
RETURN TO LAND AND RISK		\$229.14	

TABLE 8. Oats for hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2017  
 Planting dates: September 1 - November 1  
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OATS FOR HAY	\$140.00	3.00	TONS (STACKED)					\$420.00
TOTAL								\$420.00

  

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL
OAT SEED	\$0.34	100 LBS		\$34.00		\$34.00
NITROGEN (N)	\$0.22	100 LBS		\$22.00		\$22.00
PUMP WATER*		18 AC. IN.				
SUBTOTAL				\$56.00		\$56.00

  

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.93	\$3.06	\$0.76	\$6.33	\$13.08
FLOW	50 HP	1.05 HR		\$7.88	\$8.25	\$1.46	\$17.57	\$35.15
DISC (2X)	50 HP	0.78 HR		\$5.85	\$6.13	\$1.52	\$12.67	\$26.16
FLOAT (2X)	50 HP	0.64 HR		\$4.80	\$5.03	\$0.70	\$8.31	\$18.83
DRILL	50 HP	0.21 HR		\$1.58	\$1.65	\$0.45	\$34.83	\$38.50
IRRIGATE (4X)		2.00 HR		\$15.00	\$42.33	\$0.00	\$14.94	\$72.27
SUBTOTAL		5.07 HR		\$38.03	\$66.45	\$4.88	\$94.64	\$203.99

  

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER	14 FT	0.16 HR		\$1.20	\$0.00	\$0.04	\$3.60	\$4.85
BALER, PTO	50 HP	0.21 HR		\$1.58	\$1.65	\$0.26	\$3.70	\$7.18
BALE WAGON	50 HP	0.20 HR		\$1.50	\$1.57	\$0.47	\$5.75	\$9.29
SUBTOTAL		0.57 HR		\$4.28	\$3.22	\$0.78	\$13.05	\$21.32

  

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.91 HR			\$6.83			\$6.83
EMPLOYEE BENEFITS				\$5.08			\$5.08
FARM INSURANCE		\$0.51					\$0.51
LAND TAXES						\$1.61	\$1.61
SUPERVISION AND MANAGEMENT			\$20.62				\$20.62
OTHER EXPENSES		\$144.69					\$144.69
SUBTOTAL	0.91 HR	\$145.20	\$32.52			\$1.61	\$179.32

  

TOTAL OPERATING EXPENSES	6.55 HR	\$201.20	\$74.82	\$69.67	\$5.66	\$109.30	\$460.64
NET OPERATING PROFIT							(\$40.64)
INTEREST ON OPERATING CAPITAL	( \$46.16 @ 5.50% )						\$2.54
INTEREST ON EQUIPMENT INVESTMENT							\$40.03
RETURN TO LAND AND RISK							(\$83.21)

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

BUDGET SUMMARY

GROSS RETURN		\$420.00	
VARIABLE OPERATING EXPENSES	\$279.06		
RETURN OVER VARIABLE EXPENSES		\$140.94	(GROSS MARGINS)
FIXED EXPENSES	\$109.30		
NET FARM INCOME		\$31.64	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$74.82		
NET OPERATING PROFIT		(\$43.18)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$40.03		
RETURN TO LAND AND RISK		(\$83.21)	

TABLE 9. Sorghum-sudan hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2017  
 Planting dates: May 1 - June 1  
 Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
SORGHUM/SUDAN HAY	\$160.00	5.00	TONS (STACKED)					\$800.00
<b>TOTAL</b>								<b>\$800.00</b>
<b>PURCHASED INPUTS</b>								
	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST		TOTAL	
SEED	\$1.04	50 LBS	\$52.00				\$52.00	
NITROGEN (N)	\$0.22	100 LBS	\$22.00				\$22.00	
PUMP WATER*		16 AC. IN.						
<b>SUBTOTAL</b>			<b>\$74.00</b>				<b>\$74.00</b>	
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.93	\$3.06	\$0.76	\$6.33	\$13.08
FLOAT (2X)	50 HP	0.64 HR		\$4.80	\$5.03	\$0.70	\$8.31	\$18.83
DRILL	50 HP	0.21 HR		\$1.58	\$1.65	\$0.45	\$34.83	\$38.50
IRRIGATE (4X)		2.00 HR		\$15.00	\$37.63	\$0.00	\$13.28	\$65.91
<b>SUBTOTAL</b>		<b>3.24 HR</b>		<b>\$24.30</b>	<b>\$47.37</b>	<b>\$1.91</b>	<b>\$62.75</b>	<b>\$136.32</b>
<b>HARVEST OPERATIONS</b>								
SWATHER (2X)	14 FT	0.32 HR		\$2.40	\$0.00	\$0.09	\$7.21	\$9.70
BALER, PTO (2X)	50 HP	0.42 HR		\$3.15	\$3.30	\$0.52	\$7.39	\$14.36
BALE WAGON (2X)	50 HP	0.40 HR		\$3.00	\$3.14	\$0.94	\$11.50	\$18.59
<b>SUBTOTAL</b>		<b>1.14 HR</b>		<b>\$8.55</b>	<b>\$6.44</b>	<b>\$1.55</b>	<b>\$26.10</b>	<b>\$42.65</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.60 HR		\$4.46				\$4.46
EMPLOYEE BENEFITS				\$3.94				\$3.94
FARM INSURANCE			\$0.39					\$0.39
LAND TAXES						\$1.61		\$1.61
SUPERVISION AND MANAGEMENT				\$35.19				\$35.19
OTHER EXPENSES			\$144.69					\$144.69
<b>SUBTOTAL</b>		<b>0.60 HR</b>		<b>\$145.08</b>	<b>\$43.59</b>		<b>\$1.61</b>	<b>\$190.29</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>4.98 HR</b>		<b>\$219.08</b>	<b>\$76.44</b>	<b>\$53.81</b>	<b>\$3.46</b>	<b>\$90.46</b>
<b>NET OPERATING PROFIT</b>								<b>\$356.75</b>
INTEREST ON OPERATING CAPITAL		( \$49.98 @	5.50%	)				\$2.75
INTEREST ON EQUIPMENT INVESTMENT								\$35.84
<b>RETURN TO LAND AND RISK</b>								<b>\$318.16</b>

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

**BUDGET SUMMARY**

GROSS RETURN		\$800.00	
VARIABLE OPERATING EXPENSES	\$279.10		
RETURN OVER VARIABLE EXPENSES	\$520.90		(GROSS MARGINS)
FIXED EXPENSES	\$90.46		
NET FARM INCOME	\$430.44		(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$76.44		
NET OPERATING PROFIT	\$354.00		(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$35.84		
RETURN TO LAND AND RISK		\$318.16	

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County,  
Projected 2017

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.00	3.00	5.00
PRIMARY PRICE		\$175.00	\$140.00	\$160.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$1,050.00	\$420.00	\$800.00
CASH OPERATING EXPENSES				
SEED	\$91.50		\$34.00	\$52.00
FERTILIZER		\$40.00	\$22.00	\$22.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$24.11	\$16.10	\$27.33	\$16.18
FUEL-IRRIGATION	\$18.81	\$105.83	\$42.33	\$37.63
REPAIRS	\$4.54	\$3.88	\$5.66	\$3.46
CUSTOM CHARGES				
LAND TAXES		\$3.22	\$1.61	\$1.61
OTHER EXPENSES	\$0.46	\$290.13	\$145.20	\$145.08
TOTAL CASH EXPENSES	\$139.43	\$503.29	\$278.13	\$277.96
RETURN OVER CASH EXPENSES	(\$139.43)	\$546.71	\$141.87	\$522.04
FIXED EXPENSES	\$83.24	\$137.69	\$107.69	\$88.85
TOTAL EXPENSES	\$222.66	\$640.98	\$385.82	\$366.81
NET FARM INCOME	(\$222.66)	\$409.02	\$34.18	\$433.19
LABOR AND MANAGEMENT COSTS	\$62.29	\$124.41	\$74.82	\$76.44
NET OPERATING PROFIT	(\$284.95)	\$284.61	(\$40.64)	\$356.75
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$3.86	\$2.54	\$2.75
INTEREST ON EQUIPMENT INVESTMENT		\$51.61	\$40.03	\$35.84
TOTAL CAPITAL COSTS	\$0.00	\$55.47	\$42.57	\$38.59
RETURN TO LAND AND RISK	(\$284.95)	\$229.14	(\$83.21)	\$318.16

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,  
Projected 2017

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$42,000
OATS FOR HAY	5.00 ACRES	
CROP		\$2,100
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$4,000
GROSS RETURN		<u>\$48,100</u>
CASH OPERATING EXPENSES		
SEED		\$796
FERTILIZER		\$1,820
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$958
FUEL-IRRIGATION		\$4,708
REPAIRS		\$219
CUSTOM CHARGES		\$0
LAND TAXES		\$145
OTHER EXPENSES		\$13,058
TOTAL CASH EXPENSES		<u>\$23,470</u>
RETURN OVER CASH EXPENSES		\$24,630
FIXED EXPENSES		\$5,239
TOTAL EXPENSES		\$28,709
NET FARM INCOME		\$19,391
LABOR AND MANAGEMENT COSTS		\$5,982
NET OPERATING PROFIT		\$13,409
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$181
INTEREST ON EQUIPMENT INVESTMENT		\$2,444
TOTAL CAPITAL COSTS		<u>\$2,625</u>
RETURN TO LAND AND RISK		<u>\$10,785</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$9,735	20.23%
\$900 /ACRE	\$9,435	17.58%
\$1,100 /ACRE	\$9,135	15.54%
\$1,300 /ACRE	\$8,835	13.93%
\$1,500 /ACRE	\$8,535	12.62%
\$1,700 /ACRE	\$8,235	11.53%
\$1,900 /ACRE	\$7,935	10.62%
\$2,100 /ACRE	\$7,635	9.84%

\* 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)