

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 ROADS, DITCHES, HOMESTEAD	5.00 *	16	80
	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		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.50
General & Irrigators	\$/hour	\$7.50
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.22
Seed:		
Alfalfa	\$/pound	\$3.05
Oats for Hay	\$/pound	\$0.34
Natural Gas (Gas NM) (service charge)	\$/MCF \$/month	\$4.01 \$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%
Financial Rates:		
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
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,
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
Insurance			
- general liability (non-employee)			\$290
- fire/theft			\$194
Property Taxes			
- 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 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
GROSS RETURNS								
ALFALFA HAY	\$175.00	6.00 TONS (STACKED)						\$1,050.00
TOTAL								\$1,050.00
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					\$28.50	\$28.50
: Interest							\$6.59	\$6.59
PUMP WATER*		45 AC. IN.						
SUBTOTAL			\$84.13				\$35.08	\$119.22
PREHARVEST OPERATIONS								
	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
SUBTOTAL		5.50 HR		\$41.25	\$105.83	\$0.00	\$37.35	\$184.43
HARVEST OPERATIONS								
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
SUBTOTAL		2.85 HR		\$21.38	\$16.10	\$3.88	\$65.26	\$106.61
OVERHEAD EXPENSES								
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
SUBTOTAL		0.71 HR		\$290.13	\$61.78		\$3.22	\$355.13
TOTAL OPERATING EXPENSES		9.06 HR		\$374.26	\$124.41	\$121.93	\$3.88	\$765.39
NET OPERATING PROFIT								\$284.61
INTEREST ON OPERATING CAPITAL		(\$70.19	@	5.50%)		\$3.86
INTEREST ON EQUIPMENT INVESTMENT								\$51.61
RETURN TO LAND AND RISK								\$229.14

* 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
GROSS RETURNS								
SORGHUM/SUDAN HAY	\$160.00	5.00	TONS (STACKED)					\$800.00
TOTAL								\$800.00
PURCHASED INPUTS								
	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.						
SUBTOTAL								\$74.00
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
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
SUBTOTAL								\$136.32
HARVEST OPERATIONS								
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
SUBTOTAL								\$42.65
OVERHEAD EXPENSES								
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
SUBTOTAL								\$190.29
TOTAL OPERATING EXPENSES								\$443.25
NET OPERATING PROFIT								\$356.75
INTEREST ON OPERATING CAPITAL		(\$49.98 @	5.50%)				\$2.75
INTEREST ON EQUIPMENT INVESTMENT								\$35.84
RETURN TO LAND AND RISK								\$318.16

* 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)