

TABLE 1. Acreage Summary, Otero County,
Projected 2005.

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 2005.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$6.65
General & Irrigators	\$/hour	\$6.35
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.40
Seed:		
Alfalfa	\$/pound	\$2.88
Oats for Hay	\$/pound	\$0.27
Natural Gas (Gas NM) (service charge)	\$/MCF \$/month	\$3.29 \$10.00
Diesel fuel	\$/gallon	\$2.10
Gasoline	\$/gallon	\$2.00
Electricity (Otero Coop)	cents/KwHr	8.15
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	7.00%
Land Interest Rate	percent	7.00%
Equipment Interest Rate	percent	7.00%
Expected Inflation Rate	percent	3.00%
Land Taxes	\$300.00 /acre (full value)	\$2.99
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value) \$23.77
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 2005.

Item			
Electricity (Domestic & Shop)		\$215.00 per month	\$2,580
Telephone		\$115.00 per month	\$1,380
Accounting & Legal			\$1,525
Misc. Supplies & Hand Tools			\$1,430
Pickup and Auto			
miles	20,013	@ \$0.365 per mile	\$7,305
Insurance			
- general liability (non-employee)			\$1,710
- fire/theft			\$1,525
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$1,290
Dues, fees, publications			\$405
Farmstead Equipment			\$185
Total			\$25,345
Total per planted acre			\$563.22

TABLE 4. Pumping costs and data for irrigation wells, Tularosa Basin, Otero County, Projected 2005.

INPUT DATA			
DELIVERY PSI: SPRINKLER	40	DEPTH CHARACTERISTICS:	
		STATIC.....	145
		DRAW DOWN.....	35
		TOTAL HEAD.....	180
		CASING.....	275
GALLONS PER MINUTE (GPM)	300		
WORK HORSEPOWER	21		
EFFICIENCY FACTOR:			
ELECTRICITY	0.290		
NATURAL GAS	0.151		
LP GAS	0.151		
DIESEL	0.180		
FUEL COST PER HOUR:			
ELECTRICITY	8.15	CENTS/KwHr	
NATURAL GAS	\$3.29	\$/MCF	
LP GAS	\$0.62	\$/GAL	
DIESEL	\$2.10	\$/GAL	
PUMPING COSTS			
ELECTRICAL WELL:			
COST PER HOUR		\$4.36	
COST PER ACRE INCH		\$6.57	
NATURAL GAS WELL:			
COST PER HOUR		\$1.28	
COST PER ACRE INCH		\$1.94	
BUTANE WELL:			
COST PER HOUR		\$2.38	
COST PER ACRE INCH		\$3.59	
DIESEL WELL:			
COST PER HOUR		\$4.35	
COST PER ACRE INCH		\$6.56	

TABLE 5. Equipment summary for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2005.

EQUIPMENT				VARIABLE COSTS				FIXED COSTS			
ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	FUEL, OIL, LUBRICANT	REPAIR	FUEL, OIL PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HR	
TRACTOR	50 HP	122	1	\$7,609	\$912	\$132	\$7.48	\$1.08	\$899	\$89	\$8.10
BALEWAGON, PTO		43	1	\$1,500		\$55		\$1.28	\$800	\$80	\$20.46
BALER, PTO	2 WIRE	45	1	\$1,600		\$7		\$0.15	\$385	\$38	\$9.38
PLOW	2 BTM	4	1	\$250		\$1		\$0.31	\$33	\$2	\$8.53
FLOAT	8 FT	9	1	\$400		\$0		\$0.01	\$40	\$3	\$4.80
DISC	8 FT	12	1	\$700		\$11		\$0.87	\$93	\$7	\$8.04
SPRINKLER		3,020	1	\$2,500		\$0		\$0.00	\$333	\$25	\$0.12
DRILL	12 FT	3	1	\$2,200		\$3		\$1.06	\$440	\$22	\$157.11
SWATHER	14 FT	34	1	\$2,100		\$10		\$0.28	\$700	\$70	\$22.37
NATURAL GAS WELL		3,020	1	\$13,025	\$3,880	\$0	\$1.28	\$0.00	\$1,042	\$130	\$0.43
				\$31,884	\$4,792	\$219		\$4,766	\$466		

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County
Projected 2005.

Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<u>PURCHASED INPUTS</u>									
ALFALFA SEED	\$2.88	30 LBS	\$86.40						\$86.40
PUMP WATER*		8 AC. IN.							
SUBTOTAL			\$86.40						\$86.40
<u>PREHARVEST OPERATIONS</u>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$2.59	\$2.92	\$0.42	\$3.21	\$9.14	
PLOW	50 HP	1.05 HR		\$6.98	\$7.85	\$1.46	\$17.46	\$33.76	
DISC (2X)	50 HP	0.78 HR		\$5.19	\$5.83	\$1.52	\$12.59	\$25.13	
FLOAT (2X)	50 HP	0.64 HR		\$4.26	\$4.79	\$0.70	\$8.26	\$18.00	
DRILL	50 HP	0.21 HR		\$1.40	\$1.57	\$0.45	\$34.69	\$38.11	
IRRIGATE (4X)		2.00 HR		\$12.70	\$15.50	\$0.00	\$6.59	\$34.79	
SUBTOTAL		5.07 HR		\$33.12	\$38.47	\$4.54	\$82.80	\$158.92	
<u>OVERHEAD EXPENSES</u>									
DOWNTIME		0.77 HR		\$5.10					\$5.10
EMPLOYEE BENEFITS				\$3.97					\$3.97
FARM INSURANCE			\$0.40					\$0.40	
SUPERVISION AND MANAGEMENT				\$13.35					\$13.35
SUBTOTAL		0.77 HR	\$0.40	\$22.43					\$22.82
<u>TOTAL OPERATING EXPENSES</u>		5.84 HR	\$86.80	\$55.54	\$38.47	\$4.54	\$82.80	\$268.14	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2005.
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$130.00	6.00 TONS (STACKED)						\$780.00	
TOTAL							\$780.00		
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					\$26.81	\$26.81	
: Interest							\$7.85	\$7.85	
PUMP WATER*		45 AC. IN.							
SUBTOTAL			\$84.13				\$34.67	\$118.80	
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (11X)		5.50 HR		\$34.93	\$87.20	\$0.00	\$37.08	\$159.20	
SUBTOTAL				\$34.93	\$87.20	\$0.00	\$37.08	\$159.20	
HARVEST OPERATIONS									
SWATHER (5X)	14 FT	0.80 HR		\$5.32	\$0.00	\$0.22	\$17.90	\$23.44	
BALER, PTO (5X)	50 HP	1.05 HR		\$6.98	\$7.85	\$1.29	\$18.35	\$34.48	
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$6.65	\$7.48	\$2.36	\$28.56	\$45.05	
SUBTOTAL				\$18.95	\$15.33	\$3.88	\$64.81	\$102.97	
OVERHEAD EXPENSES									
DOWNTIME		0.71 HR		\$4.74				\$4.74	
EMPLOYEE BENEFITS				\$6.47				\$6.47	
FARM INSURANCE			\$0.65					\$0.65	
LAND TAXES							\$2.99	\$2.99	
SUPERVISION AND MANAGEMENT				\$38.13				\$38.13	
OTHER EXPENSES			\$563.22					\$563.22	
SUBTOTAL				\$49.33				\$2.99	\$616.18
TOTAL OPERATING EXPENSES				\$103.21	\$102.53	\$3.88	\$139.54	\$997.15	
NET OPERATING PROFIT							(\$217.15)		
INTEREST ON OPERATING CAPITAL		(\$65.47 @ 7.00%						\$4.58	
INTEREST ON EQUIPMENT INVESTMENT							\$65.68		
RETURN TO LAND AND RISK							(\$287.42)		

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

BUDGET SUMMARY

GROSS RETURN		\$780.00		
VARIABLE OPERATING EXPENSES	\$758.99			
RETURN OVER VARIABLE EXPENSES		\$21.01	(GROSS MARGINS)	
FIXED EXPENSES	\$139.54			
NET FARM INCOME		(\$118.53)	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$103.21			
NET OPERATING PROFIT		(\$221.73)	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$65.68			
RETURN TO LAND AND RISK			(\$287.42)	

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 2005.
 Planting dates: September 1 - November 1
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OATS FOR HAY	\$90.00	3.00 TONS (STACKED)						\$270.00
TOTAL								\$270.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
OAT SEED	\$0.27	100 LBS	\$27.00					\$27.00
NITROGEN (N)	\$0.40	100 LBS	\$40.00					\$40.00
PUMP WATER*		18 AC. IN.						
SUBTOTAL			\$67.00					\$67.00

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.59	\$2.92	\$0.76	\$6.29	\$12.56
PLOW	50 HP	1.05 HR		\$6.98	\$7.85	\$1.46	\$17.46	\$33.76
DISC (2X)	50 HP	0.78 HR		\$5.19	\$5.83	\$1.52	\$12.59	\$25.13
FLOAT (2X)	50 HP	0.64 HR		\$4.26	\$4.79	\$0.70	\$8.26	\$18.00
DRILL	50 HP	0.21 HR		\$1.40	\$1.57	\$0.45	\$34.69	\$38.11
IRRIGATE (4X)		2.00 HR		\$12.70	\$34.88	\$0.00	\$14.83	\$62.41
SUBTOTAL		5.07 HR		\$33.12	\$57.84	\$4.88	\$94.12	\$189.96

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER	14 FT	0.16 HR		\$1.06	\$0.00	\$0.04	\$3.58	\$4.69
BALER, PTO	50 HP	0.21 HR		\$1.40	\$1.57	\$0.26	\$3.67	\$6.90
BALE WAGON	50 HP	0.20 HR		\$1.33	\$1.50	\$0.47	\$5.71	\$9.01
SUBTOTAL		0.57 HR		\$3.79	\$3.07	\$0.78	\$12.96	\$20.59

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.91 HR		\$6.05				\$6.05
EMPLOYEE BENEFITS			\$4.43				\$4.43
FARM INSURANCE		\$0.44					\$0.44
LAND TAXES						\$1.49	\$1.49
SUPERVISION AND MANAGEMENT			\$14.62				\$14.62
OTHER EXPENSES		\$281.61					\$281.61
SUBTOTAL	0.91 HR	\$282.05	\$25.10			\$1.49	\$308.64

TOTAL OPERATING EXPENSES	6.55 HR	\$349.05	\$62.01	\$60.91	\$5.66	\$108.58	\$586.20
NET OPERATING PROFIT							(\$316.20)
INTEREST ON OPERATING CAPITAL	(\$49.50 @ 7.00%)						\$3.47
INTEREST ON EQUIPMENT INVESTMENT							\$50.95
RETURN TO LAND AND RISK							(\$370.62)

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

BUDGET SUMMARY

GROSS RETURN		\$270.00	
VARIABLE OPERATING EXPENSES	\$419.08		
RETURN OVER VARIABLE EXPENSES		(\$149.08)	(GROSS MARGINS)
FIXED EXPENSES	\$108.58		
NET FARM INCOME		(\$257.66)	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$62.01		
NET OPERATING PROFIT		(\$319.67)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$50.95		
RETURN TO LAND AND RISK		(\$370.62)	

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 2005.
Planting dates: May 1 - June 1
Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
SORGHUM/SUDAN HAY	\$110.00	5.00 TONS (STACKED)							\$550.00
TOTAL								\$550.00	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
SEED	\$1.04	50 LBS	\$52.00					\$52.00	
NITROGEN (N)	\$0.40	100 LBS	\$40.00					\$40.00	
PUMP WATER*		16 AC. IN.							
SUBTOTAL			\$92.00					\$92.00	
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$2.59	\$2.92	\$0.76	\$6.29	\$12.56	
FLOAT (2X)	50 HP	0.64 HR		\$4.26	\$4.79	\$0.70	\$8.26	\$18.00	
DRILL	50 HP	0.21 HR		\$1.40	\$1.57	\$0.45	\$34.69	\$38.11	
IRRIGATE (4X)		2.00 HR		\$12.70	\$31.00	\$0.00	\$13.18	\$56.89	
SUBTOTAL		3.24 HR		\$20.95	\$40.28	\$1.91	\$62.43	\$125.56	
HARVEST OPERATIONS									
SWATHER (2X)	14 FT	0.32 HR		\$2.13	\$0.00	\$0.09	\$7.16	\$9.38	
BALER, PTO (2X)	50 HP	0.42 HR		\$2.79	\$3.14	\$0.52	\$7.34	\$13.79	
BALE WAGON (2X)	50 HP	0.40 HR		\$2.66	\$2.99	\$0.94	\$11.42	\$18.02	
SUBTOTAL		1.14 HR		\$7.58	\$6.13	\$1.55	\$25.92	\$41.19	
OVERHEAD EXPENSES									
DOWNTIME		0.60 HR		\$3.96				\$3.96	
EMPLOYEE BENEFITS				\$3.42				\$3.42	
FARM INSURANCE			\$0.34					\$0.34	
LAND TAXES							\$1.49	\$1.49	
SUPERVISION AND MANAGEMENT				\$25.19				\$25.19	
OTHER EXPENSES			\$281.61					\$281.61	
SUBTOTAL		0.60 HR	\$281.95	\$32.57			\$1.49	\$316.01	
TOTAL OPERATING EXPENSES		4.98 HR	\$373.95	\$61.10	\$46.41	\$3.46	\$89.84	\$574.76	
NET OPERATING PROFIT								(\$24.76)	
INTEREST ON OPERATING CAPITAL		(\$57.19	@	7.00%)		\$4.00	
INTEREST ON EQUIPMENT INVESTMENT								\$45.62	
RETURN TO LAND AND RISK								(\$74.38)	

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

BUDGET SUMMARY

GROSS RETURN		\$550.00	
VARIABLE OPERATING EXPENSES	\$427.82		
RETURN OVER VARIABLE EXPENSES	\$122.18	(GROSS MARGINS)	
FIXED EXPENSES	\$89.84		
NET FARM INCOME	\$32.34	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$61.10		
NET OPERATING PROFIT	(\$28.76)	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$45.62		
RETURN TO LAND AND RISK	(\$74.38)		

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County, Projected 2005.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.00	3.00	5.00
PRIMARY PRICE		\$130.00	\$90.00	\$110.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$780.00	\$270.00	\$550.00
CASH OPERATING EXPENSES				
SEED	\$86.40		\$27.00	\$52.00
FERTILIZER		\$40.00	\$40.00	\$40.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$22.96	\$15.33	\$26.03	\$15.41
FUEL-IRRIGATION	\$15.50	\$87.20	\$34.88	\$31.00
REPAIRS	\$4.54	\$3.88	\$5.66	\$3.46
CUSTOM CHARGES				
LAND TAXES		\$2.99	\$1.49	\$1.49
OTHER EXPENSES	\$0.40	\$563.86	\$282.05	\$281.95
TOTAL CASH EXPENSES	\$129.81	\$757.39	\$417.11	\$425.31
RETURN OVER CASH EXPENSES	(\$129.81)	\$22.61	(\$147.11)	\$124.69
FIXED EXPENSES	\$82.80	\$136.56	\$107.08	\$88.35
TOTAL EXPENSES	\$212.60	\$893.95	\$524.19	\$513.66
NET FARM INCOME	(\$212.60)	(\$113.95)	(\$254.19)	\$36.34
LABOR AND MANAGEMENT COSTS	\$55.54	\$103.21	\$62.01	\$61.10
NET OPERATING PROFIT	(\$268.14)	(\$217.15)	(\$316.20)	(\$24.76)
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$4.58	\$3.47	\$4.00
INTEREST ON EQUIPMENT INVESTMENT		\$65.68	\$50.95	\$45.62
TOTAL CAPITAL COSTS	\$0.00	\$70.27	\$54.41	\$49.62
RETURN TO LAND AND RISK	(\$268.14)	(\$287.42)	(\$370.62)	(\$74.38)

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,
Projected 2005.

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$31,200
OATS FOR HAY	5.00 ACRES	
CROP		\$1,350
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$2,750
GROSS RETURN		<u>\$35,300</u>
CASH OPERATING EXPENSES		
SEED		\$741
FERTILIZER		\$2,000
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$912
FUEL-IRRIGATION		\$3,879
REPAIRS		\$219
CUSTOM CHARGES		\$0
LAND TAXES		\$134
OTHER EXPENSES		\$25,376
TOTAL CASH EXPENSES		<u>\$35,027</u>
RETURN OVER CASH EXPENSES		\$273
FIXED EXPENSES		\$5,256
TOTAL EXPENSES		\$40,283
NET FARM INCOME		(\$4,983)
LABOR AND MANAGEMENT COSTS		\$4,966
NET OPERATING PROFIT		(\$9,949)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$221
INTEREST ON EQUIPMENT INVESTMENT		\$3,110
TOTAL CAPITAL COSTS		<u>\$3,331</u>
RETURN TO LAND AND RISK		<u>(\$13,280)</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	(\$14,330)	-14.88%
\$900 /ACRE	(\$14,630)	-12.94%
\$1,100 /ACRE	(\$14,930)	-11.45%
\$1,300 /ACRE	(\$15,230)	-10.27%
\$1,500 /ACRE	(\$15,530)	-9.31%
\$1,700 /ACRE	(\$15,830)	-8.51%
\$1,900 /ACRE	(\$16,130)	-7.84%
\$2,100 /ACRE	(\$16,430)	-7.27%

* 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)