

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... OTERO COUNTY Projected 2011.
FARM SIZE..... 320.00 ACRES
IRRIGATION TYPE..... SPRINKLER
NUMBER OF CROPS..... 4

VERSION 1.0

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TABLE 1. Acreage Summary, Otero County,
Projected 2011.

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 2011.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.25
General & Irrigators	\$/hour	\$7.25
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.71
Seed:		
Alfalfa	\$/pound	\$3.30
Oats for Hay	\$/pound	\$0.34
Natural Gas (Gas NM) (service charge)	\$/MCF \$/month	\$3.76 \$10.00
Diesel fuel	\$/gallon	\$2.95
Gasoline	\$/gallon	\$3.05
Electricity (Otero Coop)	cents/kwHr	6.50
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	6.00%
Equipment Interest Rate	percent	7.00%
Expected Inflation Rate	percent	3.00%
Land Taxes	\$300.00 /acre (full value)	\$2.67
Personal Property Tax Rate	- NR - R	\$/1,000 (Assessed Value)
		\$26.73 \$21.49
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 2011.

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 4. Pumping costs and data for irrigation wells, Tabasco Basin, Otero County, February 2011.

WELL DATA	
DELIVERY PSI:	DEPTH CHARACTERISTICS:
SPRINKLER 40	STATIC _____ 145
	DRAW DOWN _____ 25
	TOTAL HEAD _____ 180
	CASING _____ 275
GALLONS PER MINUTE (GPM)	
WORK HORSE POWER	
EFFICIENCY FACTOR:	
ELECTRICITY 0.200	
NATURAL GAS 0.118	
LP GAS 0.131	
DIESEL 0.180	
FUEL COST PER HOUR:	
ELECTRICITY 6.50 CENTS/KWH	
NATURAL GAS \$2.76 GAL	
LP GAS \$0.62 GAL	
DIESEL \$2.82 GAL	
PUMPING COSTS	
ELECTRICAL WELL	\$3.48
COST PER HOUR	
COST PER ACRE INCH	\$5.25
NATURAL GAS WELL	\$1.46
COST PER HOUR	
COST PER ACRE INCH	\$2.21
BUTANE WELL	\$2.38
COST PER HOUR	
COST PER ACRE INCH	\$3.59
DIESEL WELL	\$6.10
COST PER HOUR	
COST PER ACRE INCH	\$9.20

TABLE 5. Equipment summary for a 50 acre part-time farm, Tabasco Basin, Otero County, February 2011.

EQUIPMENT ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS				FIXED COSTS			TOTAL PER HR
				FUEL OIL LUBRICANT	REPAIR PER HR	FUEL OIL PER HR	REPAIR PER HR	DEPRECIATION	TAXES		
TRACTOR 50 HP	122	1	\$6,911	\$1,301	\$132	\$11.41	\$1.28	\$899	\$80	\$8.02	
BALEWAGON PTO	43	1	\$1,000				\$1.28	\$800	\$71	\$20.26	
BALER PTO	2 WIRE	45	\$1,600		\$7		\$0.15	\$385	\$34	\$9.29	
FLOW	2 BTM	4	\$200		\$1		\$0.31	\$33	\$2	\$8.47	
PLANT	8 FT	9	\$400		\$0		\$0.01	\$40	\$3	\$4.76	
DISC	8 FT	12	\$700		\$11		\$0.92	\$93	\$6	\$7.68	
SPRINKLER	12 FT	3,000	\$2,500		\$0		\$0.00	\$333	\$22	\$0.12	
DRILL	3	1	\$2,200		\$3		\$1.06	\$460	\$20	\$166.33	
SWATHER	14 FT	34	\$2,100		\$10		\$0.29	\$700	\$62	\$22.16	
NATURAL GAS WELL	3,000	1	\$13,000	\$4,421	\$0	\$1.46	\$0.00	\$1,082	\$116	\$6.42	
			\$31,186	\$5,812	\$219			\$4,766	\$417		

EQUIPMENT LIST

ITEM	NEW VALUE	USED VALUE	YEARS LIFE	EQUIP CODE	MAX HOURS	FUEL LBS PER HOUR	LUBE COST	ACCOM HOURS	INTEREST EXPENSE
TRACTOR 50 HP	17975.00	6917.00	20.00	5.00	800.00	3.40	0.10	1020.70	15.00
BALEWAGON PTO	10000.00	15000.00	20.00	5.00	800.00			250.00	6.00
BALER PTO	2 WIRE	7000.00	18000.00	20.00	200.00			812.70	16.00
FLOW	2 BTM	500.00	250.00	15.00	3.00	300.00		47.20	16.00
PLANT	8 FT	600.00	400.00	15.00	4.00	300.00		134.40	15.00
DISC	1400.00	700.00	15.00	3.00	300.00			199.68	16.00
SPRINKLER	12 FT	8000.00	2000.00	10.00	0.00	8740.00		48306.26	15.00
DRILL	3	2400.00	2200.00	10.00	8.00	100.00		38.22	13.00
SWATHER	14 FT	14000.00	21000.00	20.00	2.00	800.00		441.20	13.00
NATURAL GAS WELL	24000.00	13000.00	20.00	0.00	8740.00			48306.26	15.00

USAGE LIST

ITEM	NEW VALUE	USED VALUE	YEARS LIFE	EQUIP CODE	MAX HOURS	FUEL LBS PER HOUR	LUBE COST	ACCOM HOURS	INTEREST EXPENSE	ALFALFA ESTABLISHMENT				
										ALFALFA EST	ALFALFA HAY	OATS FOR HAY	SUDAN HAY	
TRACTOR 50 HP	17975.00	6917.00	20.00	5.00	800.00	3.40	0.10	1020.70	15.00	820.13	3.07	2.05	3.48	2.06
BALEWAGON PTO	10000.00	15000.00	20.00	5.00	800.00			250.00	6.00	580.00	0.00	1.00	0.20	0.4
BALER PTO	2 WIRE	7000.00	18000.00	20.00	200.00			812.70	16.00	200.00	0.00	1.05	0.21	0.42
FLOW	2 BTM	500.00	250.00	15.00	3.00	300.00		47.20	16.00	17.50	1.05	0.00	0.00	1.05
PLANT	8 FT	600.00	400.00	15.00	4.00	300.00		134.40	15.00	21.00	0.84	0.00	0.84	0.84
DISC	1400.00	700.00	15.00	3.00	300.00			199.68	16.00	49.00	1.17	1.17	0.39	2.73
SPRINKLER	12 FT	8000.00	2000.00	10.00	0.00	8740.00		48306.26	15.00	175.00	12.07	67.89	27.15	24.136889
DRILL	3	2400.00	2200.00	10.00	8.00	100.00		38.22	13.00	194.00	0.21	0.00	0.21	0.63
SWATHER	14 FT	14000.00	21000.00	20.00	2.00	800.00		441.20	13.00	60.00	0.16	0.16	0.32	1.28
NATURAL GAS WELL	24000.00	13000.00	20.00	0.00	8740.00			48306.26	15.00	911.75	12.07	67.89	27.15	24.136889

INTEREST PROXATION

ALFALFA HAY	OATS FOR HAY	SUDAN HAY
10.57	17.95	10.62
13.62	2.60	5.21
6.27	1.25	2.51
0.50	0.00	0.00
0.00	1.50	1.50
0.00	4.59	1.53
3.93	1.57	1.40
0.00	11.00	11.00
11.40	2.28	4.56
26.49	8.20	7.29
66.68	50.95	45.62

ALFALFA ESTABLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	50 HP	1.00	0.39	0.39	
FLOW	50 HP	1.00	1.05	1.05	
DISC (2X)	50 HP	2.00	0.39	0.78	
FLOAT (2X)	50 HP	2.00	0.32	0.64	
DRILL (4X)	50 HP	1.00	0.21	0.21	
IRRIGATE (4X)		4.00	1.51	12.07	

ALFALFA HAY

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
IRRIGATE (11X)		11.00	1.51	67.89	
SWATHER (3X)	14 FT	5.00	0.16	0.80	
BALER PTO (3X)	50 HP	5.00	0.21	1.05	
BALEWAGON PTO (3X)	50 HP	5.00	0.20	1.00	

OATS FOR HAY

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	50 HP	1.00	0.39	0.39	
FLOW	50 HP	1.00	1.05	1.05	
DISC (2X)	50 HP	2.00	0.39	0.78	
FLOAT (2X)	50 HP	2.00	0.32	0.64	
DRILL	50 HP	1.00	0.21	0.21	
IRRIGATE (4X)		4.00	1.51	27.15	

SUDAN HAY

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
SWATHER	14 FT	1.00	0.16	0.16	
BALER PTO	50 HP	1.00	0.21	0.21	
BALE WAGON	50 HP	1.00	0.20	0.20	

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
0	0.000000	0.000020	0.000020	0.000020	0.000060	0.000140	0.000040	0.000240	0.000200
50	0.000000	0.000020	0.000020	0.000020	0.000060	0.000140	0.000040	0.000240	0.000200
100	0.000000	0.000020	0.000020	0.000020	0.000140	0.000220	0.000100	0.000380	0.000200
200	0.000000	0.000040	0.000040	0.000040	0.000140	0.000260	0.000110	0.000490	0.000200
300	0.000000	0.000060	0.000060	0.000060	0.000200	0.000310	0.000140	0.000630	0.000400
400	0.000000	0.000080	0.000080	0.000080	0.000260	0.000390	0.000160	0.000810	0.000400
500	0.000000	0.000100	0.000100	0.000100	0.000320	0.000470	0.000170	0.000930	0.000400
600	0.000000	0.000120	0.000120	0.000120	0.000380	0.000550	0.000190	0.001050	0.000400
700	0.000000	0.000140	0.000140	0.000140	0.000440	0.000630	0.000210	0.001150	0.000400
800	0.000000	0.000160	0.000160	0.000160	0.000500	0.000720	0.000230	0.001250	0.000400
900	0.000000	0.000180	0.000180	0.000180	0.000560	0.000800	0.000250	0.001350	0.000400
1000	0.000000	0.000200	0.000200	0.000200	0.000620	0.000880	0.000270	0.001450	0.000400
1200	0.000040	0.000145	0.000205	0.000205	0.000445	0.000680	0.000245	0.001185	0.000710
1400	0.000040	0.000170	0.000230	0.000230	0.000465	0.000700	0.000245	0.001285	0.000710
1600	0.000100	0.000170	0.000230	0.000230	0.000465	0.000700	0.000245	0.001285	0.000710
1800	0.000150	0.000170	0.000230	0.000230	0.000465	0.000700	0.000245	0.001285	0.000710
2000	0.000150	0.000285	0.000285	0.000285	0.000465	0.000700	0.000245	0.001285	0.000710
2500	0.000075								
3000	0.000050								
4000	0.000100								
5000	0.000122								
6000	0.000138								
7000	0.000148								
8000	0.000158								
9000	0.000170								
10000	0.000180								
6000	0.000204								

* Based on unpublished data of D. R. Hunt, Department of Agricultural Economics, University of Illinois.

** Based on "Agricultural Machinery Data" in Agricultural Engineers Yearbook, 1953.

Codes

- 1 tractors
- 2 balers, combines, forage harvesters, windrows, cutters
- 3 mow, hay, disk, moldboard plows, chisels, field cultivators, row cultivators, laser levels
- 4 hay mowers, mowers, flails, tire-buck, disc, roller, water, furrow
- 5 baler, plow
- 6 corn heads, cotton pickers, cotton strippers, corn cobs
- 7 corn heads, forage equipment, rotary mowers, slash choppers
- 8 feed wagons, farm trucks
- 9 other, cultural, roads
- 0 baler or mower, manure spreader
- 6 mowers, silage, forage equipment, mounted mowers
- 9 fertilizer, distributive 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 2011.
Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
PURCHASED INPUTS									
ALFALFA SEED	\$3.30	30 LBS	\$99.00						\$99.00
PUMP WATER*		8 AC. IN.							
SUBTOTAL			\$99.00						\$99.00
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$2.83	\$4.45	\$0.42	\$3.18	\$10.87	
PLOW	50 HP	1.05 HR		\$7.61	\$11.98	\$1.46	\$17.32	\$38.36	
DISC (2X)	50 HP	0.78 HR		\$5.66	\$8.90	\$1.52	\$12.48	\$28.55	
FLOAT (2X)	50 HP	0.64 HR		\$4.64	\$7.30	\$0.70	\$8.18	\$20.82	
DRILL	50 HP	0.21 HR		\$1.52	\$2.40	\$0.45	\$34.51	\$38.88	
IRRIGATE (4X)		2.00 HR		\$14.50	\$17.66	\$0.00	\$6.53	\$38.69	
SUBTOTAL		5.07 HR		\$36.76	\$52.68	\$4.54	\$82.20	\$176.18	
OVERHEAD EXPENSES									
DOWNTIME		0.77 HR		\$5.56					\$5.56
EMPLOYEE BENEFITS				\$4.41					\$4.41
FARM INSURANCE			\$0.44					\$0.44	
SUPERVISION AND MANAGEMENT				\$14.54					\$14.54
SUBTOTAL		0.77 HR	\$0.44	\$24.52					\$24.96
TOTAL OPERATING EXPENSES		5.84 HR	\$99.44	\$61.28	\$52.68	\$4.54	\$82.20	\$300.14	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2011.
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$165.00	6.00 TONS (STACKED)						\$990.00
TOTAL								\$990.00
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					\$30.01	\$30.01
: Interest							\$9.24	\$9.24
PUMP WATER*		45 AC. IN.						
SUBTOTAL			\$84.13				\$39.25	\$123.38
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (11X)		5.50 HR		\$39.88	\$99.36	\$0.00	\$36.72	\$175.96
SUBTOTAL			5.50 HR	\$39.88	\$99.36	\$0.00	\$36.72	\$175.96
HARVEST OPERATIONS								
SWATHER (5X)	14 FT	0.80 HR		\$5.80	\$0.00	\$0.22	\$17.73	\$23.75
BALER, PTO (5X)	50 HP	1.05 HR		\$7.61	\$11.98	\$1.29	\$18.18	\$39.06
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$7.25	\$11.41	\$2.36	\$28.29	\$49.30
SUBTOTAL			2.85 HR	\$20.66	\$23.38	\$3.88	\$64.19	\$112.12
OVERHEAD EXPENSES								
DOWNTIME		0.71 HR		\$5.17				\$5.17
EMPLOYEE BENEFITS				\$7.26				\$7.26
FARM INSURANCE			\$0.73					\$0.73
LAND TAXES							\$2.67	\$2.67
SUPERVISION AND MANAGEMENT				\$46.53				\$46.53
OTHER EXPENSES			\$289.38					\$289.38
SUBTOTAL			0.71 HR	\$290.10	\$58.96		\$2.67	\$351.73
TOTAL OPERATING EXPENSES			9.06 HR	\$374.24	\$119.49	\$122.75	\$3.88	\$763.19
NET OPERATING PROFIT								\$226.81
INTEREST ON OPERATING CAPITAL		(\$69.18	@	7.00%)		\$4.84
INTEREST ON EQUIPMENT INVESTMENT								\$65.68
RETURN TO LAND AND RISK								\$156.28

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

BUDGET SUMMARY

GROSS RETURN		\$990.00	
VARIABLE OPERATING EXPENSES	\$505.70		
RETURN OVER VARIABLE EXPENSES	\$484.30		(GROSS MARGINS)
FIXED EXPENSES	\$142.83		
NET FARM INCOME		\$341.46	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$119.49		
NET OPERATING PROFIT		\$221.97	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$65.68		
RETURN TO LAND AND RISK		\$156.28	

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 2011.
 Planting dates: September 1 - November 1
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
OATS FOR HAY	\$125.00	3.00 TONS (STACKED)							\$375.00
TOTAL									<u>\$375.00</u>
<hr/>									
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST		TOTAL	
OAT SEED	\$0.34	100 LBS	\$34.00					\$34.00	
NITROGEN (N)	\$0.71	100 LBS	\$71.00					\$71.00	
PUMP WATER*		18 AC. IN.							
SUBTOTAL			<u>\$105.00</u>					<u>\$105.00</u>	
<hr/>									
PREHARVEST OPERATIONS		POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR			\$2.83	\$4.45	\$0.76	\$6.24	\$14.28
PLOW	50 HP	1.05 HR			\$7.61	\$11.98	\$1.46	\$17.32	\$38.36
DISC (2X)	50 HP	0.78 HR			\$5.66	\$8.90	\$1.52	\$12.48	\$28.55
FLOAT (2X)	50 HP	0.64 HR			\$4.64	\$7.30	\$0.70	\$8.18	\$20.82
DRILL	50 HP	0.21 HR			\$1.52	\$2.40	\$0.45	\$34.51	\$38.88
IRRIGATE (4X)		2.00 HR			\$14.50	\$39.74	\$0.00	\$14.69	\$68.93
SUBTOTAL			5.07 HR		<u>\$36.76</u>	<u>\$74.76</u>	<u>\$4.88</u>	<u>\$93.42</u>	<u>\$209.83</u>
<hr/>									
HARVEST OPERATIONS									
SWATHER	14 FT	0.16 HR			\$1.16	\$0.00	\$0.04	\$3.55	\$4.75
BALER, PTO	50 HP	0.21 HR			\$1.52	\$2.40	\$0.26	\$3.64	\$7.81
BALE WAGON	50 HP	0.20 HR			\$1.45	\$2.28	\$0.47	\$5.66	\$9.86
SUBTOTAL			0.57 HR		<u>\$4.13</u>	<u>\$4.68</u>	<u>\$0.78</u>	<u>\$12.84</u>	<u>\$22.42</u>
<hr/>									
OVERHEAD EXPENSES									
DOWNTIME		0.91 HR			\$6.60				\$6.60
EMPLOYEE BENEFITS					\$4.91				\$4.91
FARM INSURANCE				\$0.49					\$0.49
LAND TAXES							\$1.34		\$1.34
SUPERVISION AND MANAGEMENT					\$18.82				\$18.82
OTHER EXPENSES				\$144.69					\$144.69
SUBTOTAL			0.91 HR		<u>\$145.18</u>	<u>\$30.32</u>		<u>\$1.34</u>	<u>\$176.84</u>
TOTAL OPERATING EXPENSES			6.55 HR		<u>\$250.18</u>	<u>\$71.21</u>	<u>\$79.44</u>	<u>\$107.60</u>	<u>\$514.09</u>
NET OPERATING PROFIT									(\$139.09)
INTEREST ON OPERATING CAPITAL (\$72.87 @ 7.00%)									\$5.10
INTEREST ON EQUIPMENT INVESTMENT									\$50.95
RETURN TO LAND AND RISK									(\$195.14)

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

GROSS RETURN		\$375.00	
VARIABLE OPERATING EXPENSES	\$340.38		
RETURN OVER VARIABLE EXPENSES		\$34.62	(GROSS MARGINS)
FIXED EXPENSES	\$107.60		
NET FARM INCOME		(\$72.98)	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$71.21		
NET OPERATING PROFIT		(\$144.19)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$50.95		
RETURN TO LAND AND RISK		<u>(\$195.14)</u>	

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 2011.
 Planting dates: May 1 - June 1
 Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
SORGHUM/SUDAN HAY	\$145.00	5.00 TONS (STACKED)						\$725.00
TOTAL								\$725.00
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$1.04	50 LBS	\$52.00					\$52.00
NITROGEN (N)	\$0.71	100 LBS	\$71.00					\$71.00
PUMP WATER*		16 AC. IN.						
SUBTOTAL								\$123.00
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.83	\$4.45	\$0.76	\$6.24	\$14.28
FLOAT (2X)	50 HP	0.64 HR		\$4.64	\$7.30	\$0.70	\$8.18	\$20.82
DRILL	50 HP	0.21 HR		\$1.52	\$2.40	\$0.45	\$34.51	\$38.88
IRRIGATE (4X)		2.00 HR		\$14.50	\$35.33	\$0.00	\$13.06	\$62.88
SUBTOTAL								\$136.86
HARVEST OPERATIONS								
SWATHER (2X)	14 FT	0.32 HR		\$2.32	\$0.00	\$0.09	\$7.09	\$9.50
BALER, PTO (2X)	50 HP	0.42 HR		\$3.05	\$4.79	\$0.52	\$7.27	\$15.62
BALE WAGON (2X)	50 HP	0.40 HR		\$2.90	\$4.56	\$0.94	\$11.31	\$19.72
SUBTOTAL								\$44.85
OVERHEAD EXPENSES								
DOWNTIME		0.60 HR		\$4.31				\$4.31
EMPLOYEE BENEFITS				\$3.81				\$3.81
FARM INSURANCE			\$0.38					\$0.38
LAND TAXES						\$1.34		\$1.34
SUPERVISION AND MANAGEMENT				\$32.19				\$32.19
OTHER EXPENSES			\$144.69					\$144.69
SUBTOTAL								\$186.72
TOTAL OPERATING EXPENSES		4.98 HR	\$268.07	\$72.07	\$58.83	\$3.46	\$89.01	\$491.43
NET OPERATING PROFIT								\$233.57
INTEREST ON OPERATING CAPITAL		(\$75.25 @	7.00%)			\$5.27
INTEREST ON EQUIPMENT INVESTMENT								\$45.62
RETURN TO LAND AND RISK								\$182.69

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

BUDGET SUMMARY

GROSS RETURN		\$725.00	
VARIABLE OPERATING EXPENSES	\$335.62		
RETURN OVER VARIABLE EXPENSES	\$389.38		(GROSS MARGINS)
FIXED EXPENSES	\$89.01		
NET FARM INCOME	\$300.37		(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$72.07		
NET OPERATING PROFIT	\$228.30		(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$45.62		
RETURN TO LAND AND RISK	\$182.69		

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County, Projected 2011.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.00	3.00	5.00
PRIMARY PRICE		\$165.00	\$125.00	\$145.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$990.00	\$375.00	\$725.00
CASH OPERATING EXPENSES				
SEED	\$99.00		\$34.00	\$52.00
FERTILIZER		\$40.00	\$71.00	\$71.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$35.02	\$23.38	\$39.70	\$23.50
FUEL-IRRIGATION	\$17.66	\$99.36	\$39.74	\$35.33
REPAIRS	\$4.54	\$3.88	\$5.66	\$3.46
CUSTOM CHARGES				
LAND TAXES		\$2.67	\$1.34	\$1.34
OTHER EXPENSES	\$0.44	\$290.10	\$145.18	\$145.07
TOTAL CASH EXPENSES	\$156.67	\$503.53	\$336.61	\$331.69
RETURN OVER CASH EXPENSES	(\$156.67)	\$486.47	\$38.39	\$393.31
FIXED EXPENSES	\$82.20	\$140.16	\$106.26	\$87.67
TOTAL EXPENSES	\$238.87	\$643.70	\$442.88	\$419.36
NET FARM INCOME	(\$238.87)	\$346.30	(\$67.88)	\$305.64
LABOR AND MANAGEMENT COSTS	\$61.28	\$119.49	\$71.21	\$72.07
NET OPERATING PROFIT	(\$300.14)	\$226.81	(\$139.09)	\$233.57
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$4.84	\$5.10	\$5.27
INTEREST ON EQUIPMENT INVESTMENT		\$65.68	\$50.95	\$45.62
TOTAL CAPITAL COSTS	\$0.00	\$70.53	\$56.05	\$50.88
RETURN TO LAND AND RISK	(\$300.14)	\$156.28	(\$195.14)	\$182.69

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,
Projected 2011.

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$39,600
OATS FOR HAY	5.00 ACRES	
CROP		\$1,875
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$3,625
GROSS RETURN		<u>\$45,100</u>
CASH OPERATING EXPENSES		
SEED		\$826
FERTILIZER		\$2,310
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,391
FUEL-IRRIGATION		\$4,421
REPAIRS		\$219
CUSTOM CHARGES		\$0
LAND TAXES		\$120
OTHER EXPENSES		\$13,057
TOTAL CASH EXPENSES		<u>\$24,110</u>
RETURN OVER CASH EXPENSES		\$20,990
FIXED EXPENSES		\$5,266
TOTAL EXPENSES		\$29,376
NET FARM INCOME		\$15,724
LABOR AND MANAGEMENT COSTS		\$5,741
NET OPERATING PROFIT		\$9,983
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$246
INTEREST ON EQUIPMENT INVESTMENT		\$3,110
TOTAL CAPITAL COSTS		<u>\$3,356</u>
RETURN TO LAND AND RISK		<u>\$6,627</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$5,577	15.08%
\$900 /ACRE	\$5,277	13.10%
\$1,100 /ACRE	\$4,977	11.58%
\$1,300 /ACRE	\$4,677	10.38%
\$1,500 /ACRE	\$4,377	9.40%
\$1,700 /ACRE	\$4,077	8.59%
\$1,900 /ACRE	\$3,777	7.91%
\$2,100 /ACRE	\$3,477	7.33%

* 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)