

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... VALENCIA & SOUTHERN BERNALILLO COUNT
FARM SIZE..... 100.00 ACRES
IRRIGATION TYPE..... FLOOD
NUMBER OF CROPS..... 4

VERSION 1.0

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Projected 2013.

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TABLE 1. Acreage Summary, Valencia and Souther Bernalillo Counties, Projected 2013.

BUDGET AREA..... VALENCIA & SOUTHERN BERNALILLO COUNTIES			
FARM SIZE.....	100 ACRES		
IRRIGATION TYPE.....	FLOOD		
NUMBER OF CROPS...	4		
		WATER USE	
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	12.00 *	12	144
ALFALFA	71.00	44	3,124
SMALL GRAIN HAY	10.00	24	240
SORGHUM HAY	10.00 *	24	240
CORN SILAGE	10.00	42	420
ROADS, HOMESTEAD	9.00		
	TOTAL	100.00	4,168
		ACRE FEET PER ACRE OF WATER RIGHTS	3.47

* DOUBLE-CROPPED

TABLE 2. Basic cost information for Valencia and Southern Bernalillo Counties, Projected 2013.

Item		
Labor Wage Rate:	\$/hour	\$7.50
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.61
Phosphate (P205)	\$/pound	\$0.60
Anhydrous Ammonia (NH3)	\$/ton	\$830.00
Seed:		
Alfalfa	\$/pound	\$6.50
Oats	\$/pound	\$0.61
Corn	\$/bag	\$242.80
Sorghum	\$/pound	\$2.04
Baling Wire	\$/pound	\$0.91
Canal water	\$/acre	\$28.00
Energy:		
Butane	\$/gallon	\$2.80
Diesel fuel	\$/gallon	\$3.00
Gasoline	\$/gallon	\$3.80
Electricity	Cents/KwHr	12.67
Natural Gas	\$/MCF	\$4.01
Employee Liability Insurance	\$/ \$1,000 wages	\$20.00
Employee Benefits	percent/wages	18.00%
Labor Downtime	percent	25.00%
Financial Rates:		
Operating Capital Interest Rate	percent	5.00%
Land Interest Rate	percent	5.00%
Equipment Interest Rate	percent	5.00%
Real Interest Rate	percent	3.00%
Land Taxes	\$483.00 /acre (full value)	\$5.42
Personal Property Tax Rate	- NR \$/\$1,000 (Assessed Value)	\$33.64
	- R	\$28.14
Supervision Factors		
Irrigation	\$/labor hour	\$1.00
Equipment & General	\$/labor hour	\$0.50
Management Rate	percent	7.00%

TABLE 3. Overhead cost information for Valencia and Southern Bernalillo Counties, Projected 2013.

Item		
Electricity (Domestic & Shop)	\$133.10 per month	\$1,597
Telephone	\$96.80 per month	\$1,162
Accounting & Legal		\$581
Misc. Supplies & Hand Tools		\$587
Pickup and Auto		
miles	12,463 @ \$0.500 per mile	\$6,232
Insurance		
- general liability (non-employee)		\$1,228
- fire/theft		\$823
Property Taxes		
- non-planted land		\$0
- other than land & machinery		\$6,010
Building repairs and maintenance		\$617
Dues, fees, publications		\$327
Farmstead Equipment		\$200
	Total	\$19,362
	Total per planted acre	\$212.77

TABLE 4. Equipment summary for a 100 acre farm with above average management, Valencia and Southern Bernalillo Counties, Projected 2013.

EQUIPMENT ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS				FIXED COSTS		
				FUEL OIL LUBRICANT	REPAIR	FUEL OIL PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HR
TRACTOR 50 HP	79	1	\$7,000	\$1,126	\$85	\$14.21	\$1.08	\$899	\$101	\$12.61
TRACTOR 95 HP	41	1	\$17,335	\$958	\$39	\$23.14	\$0.94	\$525	\$88	\$14.79
BALER, PTO	66	1	\$1,600	\$10	\$8	\$0.15	\$385	\$43	\$6.49	
CULTIVATOR 4 ROW	4	1	\$1,500	\$8	\$8	\$1.86	\$200	\$17	\$51.62	
LAND PLANE 12 FT	5	1	\$2,500	\$0	\$0	\$0.10	\$333	\$28	\$75.28	
DISC 12 FT	13	1	\$2,250	\$35	\$27.9	\$330	\$25	\$25.85		
LISTER/PLANTER 4 ROW	3	1	\$5,000	\$6	\$6	\$2.40	\$1,000	\$56	\$406.18	
FLOW (2-WAY) 3 BOTTOM	21	1	\$3,350	\$89	\$89	\$4.15	\$447	\$38	\$22.59	
DRILL 10 FT	8	1	\$1,800	\$7	\$7	\$0.86	\$360	\$20	\$47.52	
SWATHER 14 FT	50	1	\$3,900	\$564	\$29	\$11.23	\$0.88	\$1,450	\$163	\$32.10
BORDER DISC 6 DISC	1	1	\$750	\$1	\$1	\$0.93	\$100	\$8	\$98.55	
			\$46,985	\$2,649	\$310			\$5,998	\$687	

EQUIPMENT LIST

ITEM	NEW VALUE	USED VALUE	YEARS LIFE	EQUIP CODE	MAX HOURS	FUEL UNIT/HR	LUBE COEF	ACCUM HOURS	AGE	INTEREST EXPENSE
TRACTOR 50 HP	17975.00	7000.00	20.00	1.00	800.00	3.40	0.10	1188.60	15.00	449.38
TRACTOR 95 HP	15735.00	17334.50	30.00	1.00	800.00	5.54	0.10	952.66	23.00	393.38
BALER, PTO	7700.00	1600.00	20.00	2.00	500.00	0.00	0.00	1186.92	18.00	192.50
CULTIVATOR 4 ROW	3000.00	1500.00	15.00	3.00	300.00	0.00	0.00	67.20	16.00	75.00
LAND PLANE 12 FT	5000.00	2500.00	15.00	4.00	300.00	0.00	0.00	76.80	16.00	125.00
DISC 12 FT	4500.00	2250.00	15.00	3.00	300.00	0.00	0.00	201.28	16.00	112.50
LISTER/PLANTER 4 ROW	15000.00	5000.00	10.00	8.00	800.00	0.00	0.00	36.40	14.00	250.00
FLOW (2-WAY) 3 BOTTOM	6700.00	3350.00	15.00	3.00	300.00	0.00	0.00	343.04	16.00	167.50
DRILL 10 FT	3800.00	1800.00	10.00	8.00	100.00	0.00	0.00	104.00	13.00	90.00
SWATHER 14 FT	29000.00	9900.00	20.00	2.00	800.00	3.12	0.20	703.96	14.00	725.00
BORDER DISC 6 DISC	1500.00	750.00	15.00	3.00	300.00	0.00	0.00	17.60	16.00	37.50

INTEREST PRORATION

ALFALFA HAY	SMALL GRAIN HAY	SORGHUM HAY	CORN FOR SILAGE
4.76	2.89	3.80	2.38
0.00	11.87	1.61	14.34
2.45	0.61	1.23	0.00
0.00	0.00	0.00	7.50
0.00	6.25	0.00	6.25
0.00	3.04	1.52	3.04
0.00	0.00	0.00	25.00
0.00	5.23	0.00	5.23
0.00	2.81	2.81	0.00
9.24	2.31	4.62	0.00
0.00	1.70	0.00	0.00
16.45	36.73	15.59	63.75

---dollars per acre---

USAGE LIST

ALFALFA EST.	ALFALFA HAY	SMALL GRAIN HAY	SORGHUM HAY	CORN FOR SILAGE	PER ACRE TOTALS
0.30	0.84	0.51	0.67	0.42	2.74
1.01	0.00	1.25	0.17	1.51	3.94
0.00	0.84	0.21	0.42	0.00	1.47
0.00	0.00	0.00	0.00	0.42	0.42
0.00	0.00	0.24	0.00	0.24	0.48
0.34	0.00	0.34	0.17	0.34	1.19
0.00	0.00	0.00	0.00	0.26	0.26
0.67	0.00	0.67	0.00	0.67	2.01
0.25	0.00	0.25	0.25	0.00	0.75
0.00	0.64	0.16	0.32	0.00	1.12
0.05	0.00	0.05	0.00	0.00	0.10

-----hours per acre-----

ALFALFA ESTABLISHMENT ACRES: 12 PUMP WATER: ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	96 HP	1.00	0.17	0.17	
FLOW	96 HP	1.00	0.67	0.67	
DISC	96 HP	1.00	0.17	0.17	
LASER PLANE (CUSTOM)					70.71
BORDER DISC	50 HP	1.00	0.05	0.05	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (2X)		2.00	0.50	1.00	

ALFALFA HAY ACRES: 71 PUMP WATER: ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
IRRIGATE (8X)		8.00	0.50	4.00	
SWATHER (4X)	14 FT.	4.00	0.16	0.64	
BALER, PTO (4X)	50 HP	4.00	0.21	0.84	
BALE WAGON (CUSTOM) (2X)					0.39

SMALL GRAIN HAY ACRES: 10 PUMP WATER: ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
FLOW	96 HP	1.00	0.67	0.67	
DISC (2X)	96 HP	2.00	0.17	0.34	
PLANE	96 HP	1.00	0.24	0.24	
BORDER DISC	50 HP	1.00	0.05	0.05	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (4X)		4.00	0.50	2.00	
SWATHER	14 FT.	1.00	0.16	0.16	
BALER, PTO	50 HP	1.00	0.21	0.21	
BALEWAGON					0.39

SORGHUM HAY ACRES: 10 PUMP WATER: ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	96 HP	1.00	0.17	0.17	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (4X)		4.00	0.50	2.00	
SWATHER (2X)	14 FT.	2.00	0.16	0.32	
BALER, PTO (2X)	50 HP	2.00	0.21	0.42	
BALEWAGON					0.39

CORN SILAGE ACRES: 10 PUMP WATER: ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
FLOW	96 HP	1.00	0.67	0.67	
DISC (2X)	96 HP	2.00	0.17	0.34	
LAND PLANE	96 HP	1.00	0.24	0.24	
LISTER/PLANTER	96 HP	1.00	0.26	0.26	
CULTIVATOR (2X)	50 HP	2.00	0.21	0.42	
IRRIGATE (8X)		8.00	0.50	4.00	

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
0	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
50	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
100	0.000060	0.000020	0.000620	0.000020	0.000140	0.000220	0.000100	0.000380	0.000300
200	0.000030	0.000030	0.000430	0.000040	0.000180	0.000260	0.000110	0.000510	0.000260
300	0.000030	0.000050	0.000390	0.000060	0.000230	0.000310	0.000140	0.000630	0.000400
400	0.000030	0.000060	0.000370	0.000090	0.000260	0.000340	0.000150	0.000710	0.000450
500	0.000030	0.000070	0.000360	0.000100	0.000280	0.000370	0.000170	0.000800	0.000630
600	0.000030	0.000080	0.000340	0.000110	0.000300	0.000390	0.000180	0.000860	0.000530
700	0.000030	0.000100	0.000340	0.000130	0.000330	0.000410	0.000200	0.000910	0.000560
800	0.000030	0.000110	0.000320	0.000150	0.000350	0.000430	0.000210	0.000960	0.000590
900	0.000030	0.000120	0.000300	0.000160	0.000370	0.000450	0.000230	0.001020	0.000600
1000	0.000090	0.000130	0.000310	0.000180	0.000380	0.000460	0.000230	0.001070	0.000630
1200	0.000045	0.000145	0.000305	0.000205	0.000405	0.000480	0.000245	0.001135	0.000710
1400	0.000045	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1500	0.000150	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1600	0.000150	0.000190	0.000285	0.000255	0.000465	0.000525	0.000135	0.001235	0.000805
1800	0.000075	0.000170	0.000285	0.000285	0.000485	0.000550	0.000295		
2000	0.000110	0.000265	0.000280	0.000305	0.000505	0.000565	0.000310		
2500	0.000056								
3000	0.000070								
3500	0.000082								
4000	0.000096								
4500	0.000108								
5000	0.000122								
5500	0.000136								
6000	0.000148								
6500	0.000162								
7000	0.000176								
7500	0.000188								
8000	0.000204								

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

** Based on "Agricultural Machinery Data" in Agricultural Engineers Yearbook, 1983.

- Codes
- 1 tractors
 - 2 balers, combines, forage harvesters, windrowers, pickups
 - 3 ray hoe, disks, moldboard plows, chisels, field cultivators, row cultivators, laser plane
 - 4 harrows, wagons, rollers, rulo buck, drag, roller, water furtow, bed draper
 - 5 balewagons, cotton pickers, cotton strippers, corn pickers, corn heads, forage equipment, rotary mowers, stalk choppers, feed wagons, farm trucks
 - 6 rakes, cutterbar mower
 - 7 baler w engine, manure spreader
 - 8 planters, drills, seeding equipment, mounted sprayers
 - 9 fertilizer distributing equipment

TABLE 5. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 100 acre farm with above average management, Valencia and Southern Bernalillo Counties
 Projected 2013.
 Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
PURCHASED INPUTS									
SEED	\$6.50	20 LBS	\$130.00						\$130.00
PHOSPHATE (P2O5)	\$0.60	90 LBS	\$54.00						\$54.00
NITROGEN (N)	\$0.61	35 LBS	\$21.35						\$21.35
CANAL WATER		12 AC. IN.							
SUBTOTAL			\$205.35						\$205.35
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	96 HP	0.17 HR		\$1.28	\$3.93	\$0.63	\$6.91	\$12.75	
PLOW	96 HP	0.67 HR		\$5.03	\$15.50	\$3.42	\$25.04	\$48.99	
DISC	96 HP	0.17 HR		\$1.28	\$3.93	\$0.63	\$6.91	\$12.75	
LASER PLANE (CUSTOM)			\$70.71					\$70.71	
BORDER DISC	50 HP	0.05 HR		\$0.38	\$0.71	\$0.10	\$5.56	\$6.74	
DRILL	50 HP	0.25 HR		\$1.88	\$3.55	\$0.49	\$15.03	\$20.95	
IRRIGATE (2X)		1.00 HR		\$7.50				\$7.50	
SUBTOTAL		2.31 HR	\$70.71	\$17.33	\$27.64	\$5.27	\$59.46	\$180.40	
OVERHEAD EXPENSES									
DOWNTIME		0.33 HR		\$2.46				\$2.46	
EMPLOYEE BENEFITS				\$3.12				\$3.12	
INSURANCE			\$0.35					\$0.35	
SUPERVISION AND MANAGEMENT				\$28.66				\$28.66	
SUBTOTAL		0.33 HR	\$0.35	\$34.23				\$34.58	
TOTAL OPERATING EXPENSES		2.64 HR	\$276.41	\$51.56	\$27.64	\$5.27	\$59.46	\$420.33	

TABLE 6. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 100 acre farm with above average management, Valencia and Southern Bernalillo Counties, Projected 2013.
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$245.00	5.00 TONS (STACKED)						\$1,225.00	
GRAZING	\$10.00	1.00 ACRE						\$10.00	
TOTAL								\$1,235.00	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
PHOSPHATE (P2O5)	\$0.60	90 LBS	\$54.00					\$54.00	
INSECTICIDE (CUSTOM)	\$21.71	1 X/ACRE	\$21.71					\$21.71	
WIRE	\$0.36	43 LBS	\$15.39					\$15.39	
ESTABLISHMENT: Principal		6 YEARS					\$70.05	\$70.05	
: Interest							\$10.95	\$10.95	
CANAL WATER		44 AC. IN.	\$28.00					\$28.00	
SUBTOTAL			\$119.10				\$81.01	\$200.11	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (8X)		4.00 HR		\$30.00				\$30.00	
HARVEST OPERATIONS									
SWATHER (4X)	14 FT.	0.64 HR		\$4.80	\$7.19	\$0.37	\$20.54	\$32.90	
BALER, PTO (4X)	50 HP	0.84 HR		\$6.30	\$11.94	\$1.04	\$16.05	\$35.32	
BALE WAGON (CUSTOM) (2X)			\$23.40					\$23.40	
SUBTOTAL		1.48 HR	\$23.40	\$11.10	\$19.13	\$1.41	\$36.59	\$91.63	
OVERHEAD EXPENSES									
DOWNTIME		0.37 HR		\$2.78				\$2.78	
EMPLOYEE BENEFITS				\$7.40				\$7.40	
INSURANCE			\$0.82					\$0.82	
LAND TAXES							\$5.42	\$5.42	
SUPERVISION AND MANAGEMENT				\$91.19				\$91.19	
OTHER EXPENSES			\$212.77					\$212.77	
SUBTOTAL		0.37 HR	\$213.60	\$101.36				\$5.42	\$320.37
TOTAL OPERATING EXPENSES		5.85 HR	\$356.10	\$142.46	\$19.13	\$1.41	\$123.02	\$642.11	
NET OPERATING PROFIT								\$592.89	
INTEREST ON OPERATING CAPITAL		(\$63.21	@	5.00%)			
INTEREST ON EQUIPMENT INVESTMENT								\$3.16	
								\$16.45	
RETURN TO LAND AND RISK								\$573.28	
BUDGET SUMMARY									
GROSS RETURN		\$1,235.00							
VARIABLE OPERATING EXPENSES	\$376.63								
RETURN OVER VARIABLE EXPENSES	\$858.37	(GROSS MARGIN)							
FIXED EXPENSES	\$123.02								
NET FARM INCOME	\$735.35	(RETURN TO CAPITAL, LABOR, LAND & RISK)							
LABOR AND MANAGEMENT COST	\$142.46								
NET OPERATING PROFIT	\$592.89	(RETURN TO CAPITAL, LAND & RISK)							
CAPITAL COSTS	\$19.61								
RETURN TO LAND AND RISK	\$573.28								

TABLE 7. Small grain hay, flood-irrigated, budgeted per acre costs and returns for a 100 acre farm with above average management, Valencia and Southern Bernalillo Counties, Projected 2013.

Planting dates: March 1 - May 1
Harvesting dates: June 15 - July 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
SMALL GRAIN HAY	\$225.00	2.50 TONS (STACKED)						\$562.50
TOTAL							\$562.50	
PURCHASED INPUTS								
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$0.61	80 LBS	\$48.80					\$48.80
WIRE	\$0.36	26 LBS	\$9.31					\$9.31
CANAL WATER		24 AC. IN.	\$28.00					\$28.00
SUBTOTAL			\$86.11					\$86.11
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$5.03	\$15.50	\$3.42	\$25.04	\$48.99
DISC (2X)	96 HP	0.34 HR		\$2.55	\$7.87	\$1.27	\$13.82	\$25.51
PLANE	96 HP	0.24 HR		\$1.80	\$5.55	\$0.25	\$21.62	\$29.22
BORDER DISC	50 HP	0.05 HR		\$0.38	\$0.71	\$0.10	\$5.56	\$6.74
DRILL	50 HP	0.25 HR		\$1.88	\$3.55	\$0.49	\$15.03	\$20.95
IRRIGATE (4X)		2.00 HR		\$15.00				\$15.00
SUBTOTAL		3.55 HR		\$26.63	\$33.19	\$5.52	\$81.07	\$146.41
HARVEST OPERATIONS								
SWATHER	14 FT.	0.16 HR		\$1.20	\$1.80	\$0.09	\$5.14	\$8.23
BALER, PTO	50 HP	0.21 HR		\$1.58	\$2.98	\$0.26	\$4.01	\$8.83
BALEWAGON			\$27.30					\$27.30
SUBTOTAL		0.37 HR		\$2.78	\$4.78	\$0.35	\$9.15	\$44.36
OVERHEAD EXPENSES								
DOWNTIME		0.48 HR		\$3.60				\$3.60
EMPLOYEE BENEFITS				\$5.29				\$5.29
INSURANCE			\$0.59					\$0.59
LAND TAXES							\$2.71	\$2.71
SUPERVISION AND MANAGEMENT				\$42.34				\$42.34
OTHER EXPENSES			\$106.39					\$106.39
SUBTOTAL		0.48 HR	\$106.97	\$51.23			\$2.71	\$160.91
TOTAL OPERATING EXPENSES		4.40 HR	\$193.08	\$80.63	\$37.97	\$5.87	\$92.93	\$437.78
NET OPERATING PROFIT							\$124.72	
INTEREST ON OPERATING CAPITAL		(\$53.16	@	5.00%)		\$2.66
INTEREST ON EQUIPMENT INVESTMENT								\$15.59
RETURN TO LAND AND RISK							\$106.47	

BUDGET SUMMARY

GROSS RETURN		\$562.50	
VARIABLE OPERATING EXPENSES	\$236.93		
RETURN OVER VARIABLE EXPENSES		\$325.57	(GROSS MARGIN)
FIXED EXPENSES	\$92.93		
NET FARM INCOME		\$232.64	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$80.63		
NET OPERATING PROFIT		\$152.02	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$18.25		
RETURN TO LAND AND RISK		\$133.77	

TABLE 8. Sorghum hay, flood-irrigated, budgeted per acre costs and returns for a 100 acre farm with above average management, Valencia and Southern Bernalillo County Projected 2013.
 Planting dates: July 1 - July 31
 Harvesting dates: August 10 - September 30

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
SORGHUM HAY	\$210.00	2.00 TONS (STACKED)							\$420.00
GRAZING	\$5.00	1.00 ACRE							\$5.00
TOTAL									\$425.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$2.04	35 LBS	\$71.40					\$71.40
WIRE	\$0.36	17 LBS	\$6.09					\$6.09
CANAL WATER		24 AC. IN.	\$28.00					\$28.00
SUBTOTAL			\$105.49					\$105.49

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	96 HP	0.17 HR		\$1.28	\$3.93	\$0.63	\$6.91	\$12.75
DRILL	50 HP	0.25 HR		\$1.88	\$3.55	\$0.49	\$15.03	\$20.95
IRRIGATE (4X)		2.00 HR		\$15.00				\$15.00
SUBTOTAL		2.42 HR		\$18.15	\$7.49	\$1.12	\$21.94	\$48.70

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER (2X)	14 FT.	0.32 HR		\$2.40	\$3.59	\$0.19	\$10.27	\$16.45
BALER, PTO (2X)	50 HP	0.42 HR		\$3.15	\$5.97	\$0.52	\$8.03	\$17.66
BALEWAGON			\$23.40					\$23.40
SUBTOTAL		0.74 HR		\$5.55	\$9.56	\$0.70	\$18.30	\$57.51

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.29 HR		\$2.18				\$2.18
EMPLOYEE BENEFITS			\$4.27				\$4.27
INSURANCE		\$0.47					\$0.47
LAND TAXES						\$2.71	\$2.71
SUPERVISION AND MANAGEMENT			\$32.33				\$32.33
OTHER EXPENSES		\$106.39					\$106.39
SUBTOTAL	0.29 HR	\$106.86	\$38.77			\$2.71	\$148.34

TOTAL OPERATING EXPENSES	3.45 HR	\$212.35	\$62.47	\$17.05	\$1.82	\$42.95	\$360.04
NET OPERATING PROFIT							\$64.96
INTEREST ON OPERATING CAPITAL	(\$55.75 @ 5.00%)						\$2.79
INTEREST ON EQUIPMENT INVESTMENT							\$15.59
RETURN TO LAND AND RISK							\$46.58

BUDGET SUMMARY

GROSS RETURN		\$425.00	
VARIABLE OPERATING EXPENSES	\$231.22		
RETURN OVER VARIABLE EXPENSES		\$193.78	(GROSS MARGIN)
FIXED EXPENSES	\$42.95		
NET FARM INCOME		\$150.83	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$62.47		
NET OPERATING PROFIT		\$88.36	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$18.38		
RETURN TO LAND AND RISK		\$69.98	

TABLE 9. Corn silage, flood-irrigated, budgeted per acre costs and returns for a 100 acre farm with above average management, Valencia and Southern Bernalillo Counties, Projected 2013.
 Planting dates: May 1 - June 15
 Harvesting dates: August 15 - September 30

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
CORN SILAGE	\$48.00	20.00 TONS (STANDING)	\$960.00
TOTAL			\$960.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$3.04	30 000	\$91.05		\$91.05
ANHYDROUS AMMONIA (NH3)	\$0.42	125 LBS	\$51.88		\$51.88
HERBICIDE (GRANULAR)	\$6.85	1 ACRE	\$6.85		\$6.85
INSECTICIDE (GRANULAR)	\$34.24	1 ACRE	\$34.24		\$34.24
CANAL WATER		42 AC. IN.	\$28.00		\$28.00
SUBTOTAL			\$212.01		\$212.01

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$5.03	\$15.50	\$3.42	\$25.04	\$48.99
DISC (2X)	96 HP	0.34 HR		\$2.55	\$7.87	\$1.27	\$13.82	\$25.51
LAND PLANE	96 HP	0.24 HR		\$1.80	\$5.55	\$0.25	\$21.62	\$29.22
LISTER/PLANTER	96 HP	0.26 HR		\$1.95	\$6.02	\$0.87	\$109.45	\$118.29
CULTIVATOR (2X)	50 HP	0.42 HR		\$3.15	\$5.97	\$1.23	\$26.98	\$37.33
IRRIGATE (8X)		4.00 HR		\$30.00				\$30.00
SUBTOTAL		5.93 HR		\$44.48	\$40.91	\$7.04	\$196.91	\$289.34

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.48 HR		\$3.62				\$3.62
EMPLOYEE BENEFITS			\$8.01				\$8.01
INSURANCE		\$0.89					\$0.89
LAND TAXES						\$5.42	\$5.42
SUPERVISION AND MANAGEMENT			\$72.17				\$72.17
OTHER EXPENSES			\$212.77				\$212.77
SUBTOTAL	0.48 HR		\$213.66	\$83.79		\$5.42	\$302.87

TOTAL OPERATING EXPENSES	6.41 HR		\$425.68	\$128.26	\$40.91	\$7.04	\$202.33	\$804.22
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NET OPERATING PROFIT								\$155.78
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INTEREST ON OPERATING CAPITAL	(\$117.99 @ 5.00%)							\$5.90
INTEREST ON EQUIPMENT INVESTMENT								\$63.75

RETURN TO LAND AND RISK								\$86.13
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BUDGET SUMMARY

GROSS RETURN	\$960.00	
VARIABLE OPERATING EXPENSES	\$473.63	
RETURN OVER VARIABLE EXPENSES	\$486.37	(GROSS MARGIN)
FIXED EXPENSES	\$202.33	
NET FARM INCOME	\$284.04	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$128.26	
NET OPERATING PROFIT	\$155.78	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$69.65	
RETURN TO LAND AND RISK	\$86.13	

TABLE 10. Summary of per acre costs and returns for a 100 acre farm with above average average management, Projected 2013.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	SMALL GRAIN HAY	SORGHUM HAY	CORN FOR SILAGE
		TONS	TONS	TONS	TONS
PRIMARY YIELD		5.00	2.50	2.00	20.00
PRIMARY PRICE		\$245.00	\$225.00	\$210.00	\$48.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00	\$0.00
SECOND INCOME		\$10.00	\$0.00	\$5.00	\$0.00
GROSS RETURN		\$1,235.00	\$562.50	\$425.00	\$960.00
CASH OPERATING EXPENSES					
SEED	\$130.00		\$48.80	\$71.40	\$91.05
FERTILIZER	\$75.35	\$54.00			\$51.88
CHEMICALS		\$21.71			\$41.09
CROP INSURANCE					
OTHER PURCHASED INPUTS		\$15.39	\$9.31	\$6.09	
CANAL WATER		\$28.00	\$28.00	\$28.00	\$28.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$27.64	\$19.13	\$37.97	\$17.05	\$40.91
FUEL-IRRIGATION					
REPAIRS	\$5.27	\$1.41	\$5.87	\$1.82	\$7.04
CUSTOM CHARGES	\$70.71	\$23.40			
LAND TAXES		\$5.42	\$2.71	\$2.71	\$5.42
OTHER EXPENSES	\$0.35	\$213.60	\$106.97	\$106.86	\$213.66
TOTAL CASH EXPENSES	\$309.31	\$382.05	\$239.63	\$233.93	\$479.04
RETURN OVER CASH EXPENSES	(\$309.31)	\$852.95	\$322.87	\$191.07	\$480.96
FIXED EXPENSES	\$59.46	\$117.60	\$90.22	\$40.24	\$196.91
TOTAL EXPENSES	\$368.77	\$499.65	\$329.86	\$274.17	\$675.96
NET FARM INCOME	(\$368.77)	\$735.35	\$232.64	\$150.83	\$284.04
LABOR AND MANAGEMENT COSTS	\$51.56	\$142.46	\$80.63	\$62.47	\$128.26
NET OPERATING PROFIT	(\$420.33)	\$592.89	\$152.02	\$88.36	\$155.78
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL		\$3.16	\$2.66	\$2.79	\$5.90
INTEREST ON EQUIPMENT INVESTMENT		\$16.45	\$15.59	\$15.59	\$63.75
TOTAL CAPITAL COSTS	\$0.00	\$19.61	\$18.25	\$18.38	\$69.65
RETURN TO LAND AND RISK	(\$420.33)	\$573.28	\$133.77	\$69.98	\$86.13

TABLE 11. Whole farm summary, Valencia and Southern Bernalillo Counties,
Projected 2013.

GROSS RETURNS		
ALFALFA HAY	71.00 ACRES	
CROP		\$86,975
GRAZING		\$710
SMALL GRAIN HAY	10.00 ACRES	
CROP		\$5,625
SORGHUM HAY	10.00 ACRES	
CROP		\$4,200
GRAZING		\$50
CORN FOR SILAGE	10.00 ACRES	
CROP		\$9,600
GROSS RETURN		<u>\$107,160</u>
CASH OPERATING EXPENSES		
SEED		\$3,673
FERTILIZER		\$5,257
CHEMICALS		\$1,952
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$1,247
CANAL WATER		\$2,828
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$2,649
FUEL-IRRIGATION		\$0
REPAIRS		\$310
CUSTOM CHARGES		\$2,510
LAND TAXES		\$493
OTHER EXPENSES		\$19,444
TOTAL CASH EXPENSES		<u>\$40,363</u>
RETURN OVER CASH EXPENSES		\$66,797
FIXED EXPENSES		\$7,363
TOTAL EXPENSES		<u>\$47,726</u>
NET FARM INCOME		\$59,434
LABOR AND MANAGEMENT COSTS		\$13,447
NET OPERATING PROFIT		\$45,987
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$338
INTEREST ON EQUIPMENT INVESTMENT		\$2,117
TOTAL CAPITAL COSTS		<u>\$2,455</u>
RETURN TO LAND AND RISK		<u>\$43,531</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$5,000 /ACRE	\$28,531	8.41%
\$6,500 /ACRE	\$24,031	6.60%
\$8,000 /ACRE	\$19,531	5.43%
\$9,500 /ACRE	\$15,031	4.61%
\$11,000 /ACRE	\$10,531	4.01%
\$12,500 /ACRE	\$6,031	3.55%

* 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)