

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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TABLE 1. Acreage Summary, Valencia and Souther Bernalillo Counties,  
Projected 2018

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 2018

Item			
Labor Wage Rate:		\$/hour	\$7.50
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)		\$/pound	\$0.31
Phosphate (P205)		\$/pound	\$0.24
Anhydrous Ammonia (NH3)		\$/ton	\$420.00
Seed:			
Alfalfa		\$/pound	\$4.00
Oats		\$/pound	\$0.44
Corn		\$/bag	\$240.00
Sorghum		\$/pound	\$1.32
Baling Wire		\$/pound	\$1.32
Canal water		\$/acre	\$28.00
Energy:			
Butane		\$/gallon	\$2.85
Diesel fuel		\$/gallon	\$2.70
Gasoline		\$/gallon	\$2.40
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	5.50%
Land Interest Rate		percent	5.00%
Equipment Interest Rate		percent	5.50%
Real Interest Rate		percent	3.00%
Land Taxes	\$483.00	/acre (full value)	\$5.24
Personal Property Tax Rate	- NR	\$/1,000 (Assessed Value)	\$32.53
	- R		\$26.53
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 2018

Item			
Electricity (Domestic & Shop)		\$139.70 per month	\$1,676
Telephone		\$101.60 per month	\$1,219
Accounting & Legal			\$610
Misc. Supplies & Hand Tools			\$616
Pickup and Auto			
miles	13,081	@ \$0.500 per mile	\$6,541
Insurance			
- general liability (non-employee)			\$1,289
- fire/theft			\$864
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$648
Dues, fees, publications			\$343
Farmstead Equipment			\$210
Total			\$20,024
Total per planted acre			\$220.05

TABLE 4. Equipment summary for a 100-acre farm with above average management, Valencia and Southern Benalla, Queensland.

EQUIPMENT	ITEM SIZE	ANNUAL HOURS OF USE	NUMBER	VARIABLE COSTS				FIXED COSTS			
				TOTAL VALUE	FUEL, OIL, LUBRICANT	REPAIR	FUEL, OIL, REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HR	
TRACTOR	50 HP	79	1	\$7,000	\$711	\$65	\$8.98	\$1.08	\$899	\$97	\$12.57
TRACTOR	95 HP	41	1	\$17,200	\$905	\$30	\$14.62	\$3.94	\$225	\$65	\$14.72
BALER PTO	2 WIRE	66	1	\$1,600		\$10		\$0.15	\$385	\$42	\$6.47
CULTIVATOR	4 ROW	4	1	\$1,500		\$6		\$1.66	\$200	\$16	\$51.49
LAND PLANE	12 FT	5	1	\$2,000		\$9		\$0.15	\$333	\$27	\$75.09
LISTER-PLANTER	4 ROW	13	1	\$2,250		\$35		\$2.79	\$300	\$24	\$26.79
PLOW (GRAV)	3 BOTTOM	21	1	\$3,300		\$80		\$4.15	\$447	\$36	\$22.33
DRILL	10 FT	8	1	\$1,800		\$7		\$2.86	\$360	\$20	\$47.44
SWATHER	14 FT	50	1	\$3,900	\$508	\$20	\$10.11	\$0.58	\$1,450	\$157	\$31.90
BORDER DISC	6 DISC	1	1	\$750		\$1		\$0.93	\$100	\$6	\$98.30
				\$48,950	\$1,824	\$310			\$5,998	\$568	

EQUIPMENT LIST

ITEM	NEW VALUE	USED VALUE	YEARS USE	SCUP CODE	MAX HOURS	FUEL LITER	LUBE COEFF	ACQUR HOURS	INTEREST AGE	EXPENSE	
TRACTOR	50 HP	17975.00	7900.00	20.00	1.00	800.00	3.40	0.10	1188.00	15.00	494.31
TRACTOR	95 HP	15235.00	17284.00	20.00	1.00	900.00	5.54	0.10	957.00	23.00	422.21
BALER PTO	2 WIRE	7700.00	1600.00	20.00	2.00	500.00	6.00	0.00	1186.92	18.00	211.75
CULTIVATOR	4 ROW	3000.00	1500.00	15.00	3.00	300.00	0.00	0.00	157.20	16.00	82.30
LAND PLANE	12 FT	5000.00	2500.00	15.00	4.00	300.00	6.00	0.00	76.80	16.00	137.50
DISC	10 FT	4000.00	2000.00	15.00	3.00	300.00	0.00	0.00	201.28	16.00	122.79
LISTER-PLANTER	4 ROW	10000.00	5000.00	10.00	8.00	800.00	6.00	0.00	36.40	14.00	275.50
PLOW (GRAV)	3 BOTTOM	4700.00	3200.00	15.00	3.00	300.00	0.00	0.00	343.24	16.00	184.25
DRILL	10 FT	3600.00	1800.00	10.00	8.00	100.00	6.00	0.00	164.00	13.00	99.00
SWATHER	14 FT	20000.00	39000.00	20.00	2.00	800.00	3.12	0.30	703.36	14.00	797.50
BORDER DISC	6 DISC	1500.00	750.00	15.00	3.00	300.00	0.00	0.00	17.60	16.00	41.25

USAGE LIST

ALFALFA EST	ALFALFA GRN	SMALL GRN	SORGHM	CORN FOR SILAGE	FOR PER ACRE	TOTALS
0.30	0.84	0.51	0.67	0.42	2.74	
1.61	0.00	1.25	0.17	1.51	5.54	
0.00	0.84	0.21	0.42	0.30	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	
0.24	0.00	0.24	0.17	0.34	1.15	
0.00	0.00	0.00	0.00	0.25	0.28	
0.47	0.00	0.67	0.00	0.87	2.01	
0.25	0.00	0.25	0.25	0.00	0.75	
0.00	0.84	0.16	0.32	0.00	1.12	
0.05	0.00	0.05	0.00	0.00	0.10	

INTEREST PROPORTION

ALFALFA EST	SMALL GRN	SORGHM	CORN FOR SILAGE
5.24	3.18	4.18	2.82
0.00	13.06	1.78	3.77
2.70	0.67	1.35	0.30
0.00	0.00	0.00	8.25
0.00	6.88	0.00	6.88
0.00	2.34	1.67	2.34
0.00	0.00	0.00	27.50
0.00	75	0.00	0.75
0.00	3.99	3.99	0.00
10.16	2.54	5.58	0.00
0.00	1.88	0.90	0.00
16.10	40.40	17.15	41.72

ALFALFA ESTABLISHMENT ACRES: 12 PUMP WATER

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	95 HP	1.00	0.17	0.17	
PLOW	95 HP	1.00	0.67	0.67	
DISC	95 HP	1.00	0.17	0.17	
LAND PLANE (CUSTOM)	95 HP	1.00	0.24	0.24	70.71
BORDER DISC	50 HP	1.00	0.25	0.25	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (2X)	50 HP	2.00	0.50	1.00	

ALFALFA HAY ACRES: 71 PUMP WATER

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
IRRIGATE (8X)	50 HP	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	0.39
BALE WAGON (CUSTOM) (2X)	50 HP	2.00	0.21	0.42	

SMALL GRAIN HAY ACRES: 10 PUMP WATER

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
PLOW	95 HP	1.00	0.67	0.67	
DISC (2X)	95 HP	2.00	0.17	0.34	
LAND PLANE	95 HP	1.00	0.24	0.24	
BORDER DISC	50 HP	1.00	0.25	0.25	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (4X)	50 HP	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	0.39
BALE WAGON	50 HP	1.00	0.21	0.21	

SORGHM HAY ACRES: 10 PUMP WATER

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	95 HP	1.00	0.17	0.17	
DRILL	50 HP	1.00	0.25	0.25	
IRRIGATE (4X)	50 HP	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	0.39
BALE WAGON	50 HP	1.00	0.21	0.21	

CORN SILAGE ACRES: 10 PUMP WATER

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
PLOW	95 HP	1.00	0.67	0.67	
DISC (2X)	95 HP	2.00	0.17	0.34	
LAND PLANE	95 HP	1.00	0.24	0.24	
LISTER-PLANTER	95 HP	1.00	0.26	0.26	
CULTIVATOR (2X)	50 HP	2.00	0.21	0.42	
IRRIGATE (8X)	50 HP	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
50	0.000080	0.000100	0.000120	0.000140	0.000160	0.000180	0.000200	0.000220	0.000240
100	0.000080	0.000120	0.000160	0.000200	0.000240	0.000280	0.000320	0.000360	0.000400
200	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
300	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
400	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
500	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
600	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
700	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
800	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
900	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1000	0.000030	0.000020	0.000010	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1200	0.000045	0.000170	0.000310	0.000450	0.000590	0.000730	0.000870	0.001010	0.001150
1400	0.000045	0.000170	0.000310	0.000450	0.000590	0.000730	0.000870	0.001010	0.001150
1600	0.000150	0.000190	0.000230	0.000270	0.000310	0.000350	0.000390	0.000430	0.000470
1800	0.000150	0.000190	0.000230	0.000270	0.000310	0.000350	0.000390	0.000430	0.000470
2000	0.000150	0.000190	0.000230	0.000270	0.000310	0.000350	0.000390	0.000430	0.000470
3000	0.000070	0.000080	0.000090	0.000100	0.000110	0.000120	0.000130	0.000140	0.000150
4000	0.000050	0.000060	0.000070	0.000080	0.000090	0.000100	0.000110	0.000120	0.000130
5000	0.000038	0.000048	0.000058	0.000068	0.000078	0.000088	0.000098	0.000108	0.000118
6000	0.000022	0.000028	0.000034	0.000040	0.000046	0.000052	0.000058	0.000064	0.000070
7000	0.000018	0.000022	0.000026	0.000030	0.000034	0.000038	0.000042	0.000046	0.000050
8000	0.000012	0.000015	0.000018	0.000021	0.000024	0.000027	0.000030	0.000033	0.000036
9000	0.000008	0.000010	0.000012	0.000014	0.000016	0.000018	0.000020	0.000022	0.000024
10000	0.000005	0.000006	0.000007	0.000008	0.000009	0.000010	0.000011	0.000012	0.000013

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 tractor
- 2 baler, combine, forage harvester, windrower, pickup
- 3 rotary hoe, disk, moldboard plow, chisel, field cultivator, row cultivator, laser level
- 4 harrow, weeper, roller, rock, drag, roller, water wheel
- 5 blade, grapple, cutter, rake, chain, digger, soil shifter
- 6 blade, grapple, cutter, rake, chain, digger, soil shifter, soil conditioner, soil mixer, rotary mower, walk choppers, lawn mowers, lawn tractors
- 7 disk, cultivator, mower
- 8 roller or grapple, manure spreader
- 9 planter, drill, seeding equipment, mounted sprayers
- 0 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 2018  
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS				TOTAL	
<b>PURCHASED INPUTS</b>								
SEED	\$4.00	20 LBS	\$80.00				\$80.00	
PHOSPHATE (P2O5)	\$0.24	90 LBS	\$21.60				\$21.60	
NITROGEN (N)	\$0.31	35 LBS	\$10.85				\$10.85	
CANAL WATER		12 AC. IN.						
SUBTOTAL			\$112.45				\$112.45	
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	96 HP	0.17 HR		\$1.28	\$2.48	\$0.63	\$6.89	\$11.28
PLOW	96 HP	0.67 HR		\$5.03	\$9.79	\$3.42	\$24.96	\$43.19
DISC	96 HP	0.17 HR		\$1.28	\$2.48	\$0.63	\$6.89	\$11.28
LASER PLANE (CUSTOM)			\$70.71					\$70.71
BORDER DISC	50 HP	0.05 HR		\$0.38	\$0.45	\$0.10	\$5.54	\$6.47
DRILL	50 HP	0.25 HR		\$1.88	\$2.24	\$0.49	\$15.00	\$19.61
IRRIGATE (2X)		1.00 HR		\$7.50				\$7.50
SUBTOTAL		2.31 HR	\$70.71	\$17.33	\$17.45	\$5.27	\$59.28	\$170.04
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.33 HR		\$2.46				\$2.46
EMPLOYEE BENEFITS				\$3.12				\$3.12
INSURANCE			\$0.35					\$0.35
SUPERVISION AND MANAGEMENT				\$21.43				\$21.43
SUBTOTAL		0.33 HR	\$0.35	\$27.00				\$27.35
<b>TOTAL OPERATING EXPENSES</b>		2.64 HR	\$183.51	\$44.33	\$17.45	\$5.27	\$59.28	\$309.84

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 2018  
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD	TOTAL
<b>GROSS RETURNS</b>			
ALFALFA HAY	\$185.00	5.00 TONS (STACKED)	\$925.00
GRAZING	\$10.00	1.00 ACRE	\$10.00
<b>TOTAL</b>			<b>\$935.00</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
PHOSPHATE (P2O5)	\$0.24	90 LBS	\$21.60		\$21.60
INSECTICIDE (CUSTOM)	\$21.71	1 X/ACRE	\$21.71		\$21.71
WIRE	\$0.36	43 LBS	\$15.39		\$15.39
ESTABLISHMENT: Principal		6 YEARS		\$51.64	\$51.64
: Interest				\$8.40	\$8.40
CANAL WATER		44 AC. IN.	\$28.00		\$28.00
<b>SUBTOTAL</b>			<b>\$86.70</b>	<b>\$60.04</b>	<b>\$146.74</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (8X)		4.00 HR		\$30.00				\$30.00
<b>HARVEST OPERATIONS</b>								
SWATHER (4X)	14 FT.	0.64 HR		\$4.80	\$6.47	\$0.37	\$20.47	\$32.12
BALER, PTO (4X)	50 HP	0.84 HR		\$6.30	\$7.54	\$1.04	\$16.00	\$30.87
BALE WAGON (CUSTOM) (2X)			\$23.40					\$23.40
<b>SUBTOTAL</b>		<b>1.48 HR</b>	<b>\$23.40</b>	<b>\$11.10</b>	<b>\$14.01</b>	<b>\$1.41</b>	<b>\$36.47</b>	<b>\$86.39</b>

OVERHEAD EXPENSES								
DOWNTIME		0.37 HR		\$2.78				\$2.78
EMPLOYEE BENEFITS				\$7.40				\$7.40
INSURANCE			\$0.82					\$0.82
LAND TAXES							\$5.24	\$5.24
SUPERVISION AND MANAGEMENT				\$70.19				\$70.19
OTHER EXPENSES			\$220.05					\$220.05
<b>SUBTOTAL</b>		<b>0.37 HR</b>	<b>\$220.87</b>	<b>\$80.36</b>			<b>\$5.24</b>	<b>\$306.47</b>

<b>TOTAL OPERATING EXPENSES</b>		<b>5.85 HR</b>	<b>\$330.97</b>	<b>\$121.46</b>	<b>\$14.01</b>	<b>\$1.41</b>	<b>\$101.74</b>	<b>\$569.60</b>
<b>NET OPERATING PROFIT</b>								<b>\$365.40</b>
INTEREST ON OPERATING CAPITAL		( \$46.59 @	5.50%	)				\$2.56
INTEREST ON EQUIPMENT INVESTMENT								\$18.10
<b>RETURN TO LAND AND RISK</b>								<b>\$344.74</b>

BUDGET SUMMARY		
GROSS RETURN		\$935.00
VARIABLE OPERATING EXPENSES	\$346.39	
RETURN OVER VARIABLE EXPENSES	\$588.61	(GROSS MARGIN)
FIXED EXPENSES	\$101.74	
NET FARM INCOME	\$486.87	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$121.46	
NET OPERATING PROFIT	\$365.40	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$20.66	
RETURN TO LAND AND RISK		\$344.74

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 2018  
 Planting dates: March 1 - May 1  
 Harvesting dates: June 15 - July 15

ITEM	PRICE	YIELD							TOTAL
<b>GROSS RETURNS</b>									
SMALL GRAIN HAY	\$160.00	2.50 TONS (STACKED)							\$400.00
<b>TOTAL</b>								<b>\$400.00</b>	
<hr/>									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
SEED	\$0.44	80 LBS	\$35.20					\$35.20	
WIRE	\$0.36	26 LBS	\$9.31					\$9.31	
CANAL WATER		24 AC. IN.	\$28.00					\$28.00	
<b>SUBTOTAL</b>			<b>\$72.51</b>					<b>\$72.51</b>	
<hr/>									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
PLOW	96 HP	0.67 HR		\$5.03	\$9.79	\$3.42	\$24.96	\$43.19	
DISC (2X)	96 HP	0.34 HR		\$2.55	\$4.97	\$1.27	\$13.77	\$22.56	
PLANE	96 HP	0.24 HR		\$1.80	\$3.51	\$0.25	\$21.56	\$27.11	
BORDER DISC	50 HP	0.05 HR		\$0.38	\$0.45	\$0.10	\$5.54	\$6.47	
DRILL	50 HP	0.25 HR		\$1.88	\$2.24	\$0.49	\$15.00	\$19.61	
IRRIGATE (4X)		2.00 HR		\$15.00				\$15.00	
<b>SUBTOTAL</b>		<b>3.55 HR</b>		<b>\$26.63</b>	<b>\$20.96</b>	<b>\$5.52</b>	<b>\$80.83</b>	<b>\$133.94</b>	
<hr/>									
HARVEST OPERATIONS									
SWATHER	14 FT.	0.16 HR		\$1.20	\$1.62	\$0.09	\$5.12	\$8.03	
BALER, PTO	50 HP	0.21 HR		\$1.58	\$1.88	\$0.26	\$4.00	\$7.72	
BALEWAGON			\$27.30					\$27.30	
<b>SUBTOTAL</b>		<b>0.37 HR</b>		<b>\$2.78</b>	<b>\$3.50</b>	<b>\$0.35</b>	<b>\$9.12</b>	<b>\$43.05</b>	
<hr/>									
OVERHEAD EXPENSES									
DOWNTIME		0.48 HR		\$3.60				\$3.60	
EMPLOYEE BENEFITS				\$5.29				\$5.29	
INSURANCE			\$0.59					\$0.59	
LAND TAXES						\$2.62		\$2.62	
SUPERVISION AND MANAGEMENT				\$30.96				\$30.96	
OTHER EXPENSES			\$110.02					\$110.02	
<b>SUBTOTAL</b>		<b>0.48 HR</b>	<b>\$110.61</b>	<b>\$39.85</b>			<b>\$2.62</b>	<b>\$153.08</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>4.40 HR</b>	<b>\$183.12</b>	<b>\$69.25</b>	<b>\$24.46</b>	<b>\$5.87</b>	<b>\$92.57</b>	<b>\$402.58</b>	
<b>NET OPERATING PROFIT</b>								<b>(\$2.58)</b>	
INTEREST ON OPERATING CAPITAL		(	\$43.20	@	5.50%	)		\$2.38	
INTEREST ON EQUIPMENT INVESTMENT								\$17.15	
<b>RETURN TO LAND AND RISK</b>								<b>(\$22.11)</b>	
<hr/>									
BUDGET SUMMARY									
GROSS RETURN			\$400.00						
VARIABLE OPERATING EXPENSES	\$213.46								
RETURN OVER VARIABLE EXPENSES		\$186.54		(GROSS MARGIN)					
FIXED EXPENSES	\$92.57								
NET FARM INCOME		\$93.97		(RETURN TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	\$69.25								
NET OPERATING PROFIT		\$24.72		(RETURN TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	\$19.53								
RETURN TO LAND AND RISK		\$5.19							

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 Counties, Projected 2018  
 Planting dates: July 1 - July 31  
 Harvesting dates: August 10 - September 30

ITEM	PRICE	YIELD						TOTAL	
<b>GROSS RETURNS</b>									
SORGHUM HAY	\$160.00	2.00	TONS (STACKED)						\$320.00
GRAZING	\$5.00	1.00	ACRE						\$5.00
<b>TOTAL</b>								<b>\$325.00</b>	
<b>PURCHASED INPUTS</b>									
	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST			TOTAL	
SEED	\$1.32	35 LBS	\$46.20					\$46.20	
WIRE	\$0.36	17 LBS	\$6.09					\$6.09	
CANAL WATER		24 AC. IN.	\$28.00					\$28.00	
<b>SUBTOTAL</b>			<b>\$80.29</b>					<b>\$80.29</b>	
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	96 HP	0.17 HR		\$1.28	\$2.48	\$0.63	\$6.89	\$11.28	
DRILL	50 HP	0.25 HR		\$1.88	\$2.24	\$0.49	\$15.00	\$19.61	
IRRIGATE (4X)		2.00 HR		\$15.00				\$15.00	
<b>SUBTOTAL</b>		<b>2.42 HR</b>		<b>\$18.15</b>	<b>\$4.73</b>	<b>\$1.12</b>	<b>\$21.89</b>	<b>\$45.89</b>	
<b>HARVEST OPERATIONS</b>									
SWATHER (2X)	14 FT.	0.32 HR		\$2.40	\$3.23	\$0.19	\$10.24	\$16.06	
BALER, PTO (2X)	50 HP	0.42 HR		\$3.15	\$3.77	\$0.52	\$8.00	\$15.44	
BALEWAGON			\$23.40					\$23.40	
<b>SUBTOTAL</b>		<b>0.74 HR</b>		<b>\$5.55</b>	<b>\$7.00</b>	<b>\$0.70</b>	<b>\$18.24</b>	<b>\$54.89</b>	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.29 HR		\$2.18				\$2.18	
EMPLOYEE BENEFITS				\$4.27				\$4.27	
INSURANCE			\$0.47					\$0.47	
LAND TAXES						\$2.62		\$2.62	
SUPERVISION AND MANAGEMENT				\$25.33				\$25.33	
OTHER EXPENSES			\$110.02					\$110.02	
<b>SUBTOTAL</b>		<b>0.29 HR</b>	<b>\$110.50</b>	<b>\$31.77</b>		<b>\$2.62</b>		<b>\$144.89</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>3.45 HR</b>	<b>\$190.78</b>	<b>\$55.47</b>	<b>\$11.73</b>	<b>\$1.82</b>	<b>\$42.74</b>	<b>\$325.96</b>	
<b>NET OPERATING PROFIT</b>								<b>(\$0.96)</b>	
INTEREST ON OPERATING CAPITAL ( \$42.25 @ 5.50% )								\$2.32	
INTEREST ON EQUIPMENT INVESTMENT								\$17.15	
<b>RETURN TO LAND AND RISK</b>								<b>(\$20.43)</b>	
<b>BUDGET SUMMARY</b>									
GROSS RETURN			\$325.00						
VARIABLE OPERATING EXPENSES	\$204.34								
RETURN OVER VARIABLE EXPENSES		\$120.66		(GROSS MARGIN)					
FIXED EXPENSES	\$42.74								
NET FARM INCOME		\$77.91		(RETURN TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	\$55.47								
NET OPERATING PROFIT		\$22.44		(RETURN TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	\$19.47								
RETURN TO LAND AND RISK		\$2.97							

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 2018  
 Planting dates: May 1 - June 15  
 Harvesting dates: August 15 - September 30

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
CORN SILAGE	\$24.00	20.00 TONS (STANDING)	\$480.00
<b>TOTAL</b>			<b>\$480.00</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$3.00	30 000	\$90.00		\$90.00
ANHYDROUS AMMONIA (NH3)	\$0.21	125 LBS	\$26.25		\$26.25
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
<b>SUBTOTAL</b>			<b>\$185.34</b>		<b>\$185.34</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$5.03	\$9.79	\$3.42	\$24.96	\$43.19
DISC (2X)	96 HP	0.34 HR		\$2.55	\$4.97	\$1.27	\$13.77	\$22.56
LAND PLANE	96 HP	0.24 HR		\$1.80	\$3.51	\$0.25	\$21.56	\$27.11
LISTER/PLANTER	96 HP	0.26 HR		\$1.95	\$3.80	\$0.87	\$109.25	\$115.87
CULTIVATOR (2X)	50 HP	0.42 HR		\$3.15	\$3.77	\$1.23	\$26.91	\$35.06
IRRIGATE (8X)		4.00 HR		\$30.00				\$30.00
<b>SUBTOTAL</b>		<b>5.93 HR</b>		<b>\$44.48</b>	<b>\$25.84</b>	<b>\$7.04</b>	<b>\$196.44</b>	<b>\$273.80</b>

OVERHEAD EXPENSES								
DOWNTIME		0.48 HR		\$3.62				\$3.62
EMPLOYEE BENEFITS				\$8.01				\$8.01
INSURANCE			\$0.89					\$0.89
LAND TAXES						\$5.24		\$5.24
SUPERVISION AND MANAGEMENT				\$38.57				\$38.57
OTHER EXPENSES			\$220.05					\$220.05
<b>SUBTOTAL</b>		<b>0.48 HR</b>	<b>\$220.94</b>	<b>\$50.19</b>		<b>\$5.24</b>		<b>\$276.36</b>

TOTAL OPERATING EXPENSES 6.41 HR \$406.28 \$94.66 \$25.84 \$7.04 \$201.68 \$735.50

NET OPERATING PROFIT (\$255.50)

INTEREST ON OPERATING CAPITAL ( \$100.89 @ 5.50% ) \$5.55  
 INTEREST ON EQUIPMENT INVESTMENT \$70.12

RETURN TO LAND AND RISK (\$331.17)

BUDGET SUMMARY

GROSS RETURN	\$480.00		
VARIABLE OPERATING EXPENSES	\$439.15		
RETURN OVER VARIABLE EXPENSES	\$40.85	(GROSS MARGIN)	
FIXED EXPENSES	\$201.68		
NET FARM INCOME	(\$160.83)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$94.66		
NET OPERATING PROFIT	(\$255.50)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$75.67		
RETURN TO LAND AND RISK	(\$331.17)		



TABLE 10. Summary of per acre costs and returns for a 100 acre farm with above average average management,  
Projected 2018

	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		\$185.00	\$160.00	\$160.00	\$24.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00	\$0.00
SECOND INCOME		\$10.00	\$0.00	\$5.00	\$0.00
GROSS RETURN		\$935.00	\$400.00	\$325.00	\$480.00
CASH OPERATING EXPENSES					
SEED	\$80.00		\$35.20	\$46.20	\$90.00
FERTILIZER	\$32.45	\$21.60			\$26.25
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	\$17.45	\$14.01	\$24.46	\$11.73	\$25.84
FUEL-IRRIGATION					
REPAIRS	\$5.27	\$1.41	\$5.87	\$1.82	\$7.04
CUSTOM CHARGES	\$70.71	\$23.40			
LAND TAXES		\$5.24	\$2.62	\$2.62	\$5.24
OTHER EXPENSES	\$0.35	\$220.87	\$110.61	\$110.50	\$220.94
TOTAL CASH EXPENSES	\$206.23	\$351.63	\$216.08	\$206.96	\$444.39
RETURN OVER CASH EXPENSES	(\$206.23)	\$583.37	\$183.92	\$118.04	\$35.61
FIXED EXPENSES	\$59.28	\$96.51	\$89.95	\$40.13	\$196.44
TOTAL EXPENSES	\$265.51	\$448.13	\$306.03	\$247.09	\$640.83
NET FARM INCOME	(\$265.51)	\$486.87	\$93.97	\$77.91	(\$160.83)
LABOR AND MANAGEMENT COSTS	\$44.33	\$121.46	\$69.25	\$55.47	\$94.66
NET OPERATING PROFIT	(\$309.84)	\$365.40	\$24.72	\$22.44	(\$255.50)
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL		\$2.56	\$2.38	\$2.32	\$5.55
INTEREST ON EQUIPMENT INVESTMENT		\$18.10	\$17.15	\$17.15	\$70.12
TOTAL CAPITAL COSTS	\$0.00	\$20.66	\$19.53	\$19.47	\$75.67
RETURN TO LAND AND RISK	(\$309.84)	\$344.74	\$5.19	\$2.97	(\$331.17)

TABLE 11. Whole farm summary, Valencia and Southern Bernalillo Counties,  
Projected 2018

GROSS RETURNS		
ALFALFA HAY	71.00 ACRES	
CROP		\$65,675
GRAZING		\$710
SMALL GRAIN HAY	10.00 ACRES	
CROP		\$4,000
SORGHUM HAY	10.00 ACRES	
CROP		\$3,200
GRAZING		\$50
CORN FOR SILAGE	10.00 ACRES	
CROP		\$4,800
GROSS RETURN		\$78,435
CASH OPERATING EXPENSES		
SEED		\$2,674
FERTILIZER		\$2,186
CHEMICALS		\$1,952
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$1,247
CANAL WATER		\$2,828
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,824
FUEL-IRRIGATION		\$0
REPAIRS		\$310
CUSTOM CHARGES		\$2,510
LAND TAXES		\$477
OTHER EXPENSES		\$20,106
TOTAL CASH EXPENSES		\$36,115
RETURN OVER CASH EXPENSES		\$42,320
FIXED EXPENSES		\$7,162
TOTAL EXPENSES		\$43,277
NET FARM INCOME		\$35,158
LABOR AND MANAGEMENT COSTS		\$11,350
NET OPERATING PROFIT		\$23,809
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$284
INTEREST ON EQUIPMENT INVESTMENT		\$2,329
TOTAL CAPITAL COSTS		\$2,613
RETURN TO LAND AND RISK		\$21,195

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$5,000 /ACRE	\$6,195	4.35%
\$6,500 /ACRE	\$1,695	3.42%
\$8,000 /ACRE	(\$2,805)	2.81%
\$9,500 /ACRE	(\$7,305)	2.39%
\$11,000 /ACRE	(\$11,805)	2.08%
\$12,500 /ACRE	(\$16,305)	1.84%

\* 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)