

BUDGET AREA..... SAN JUAN COUNTY Projected 2017
 FARM SIZE... .. 20 ACRES
 IRRIGATION TYPE..... FLOOD
 NUMBER OF CROPS..... 2

WATER USE

ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	1.5	48	72.0
ALFALFA	9.0	60	540.0
PASTURE ESTABLISHMENT	0.5 *	21	10.5
PASTURE	10.0	62	620.0
TOTAL	20.5		1,242.5
ACRE FEET PER ACRE OF WATER RIGHTS			5.05

* DOUBLE-CROPPED

TABLE 1. Basic cost information for San Juan County Projected 2017

Item			
Labor Wage Rate:			
Equipment operators	\$/hour		7.80
General & Irrigators	\$/hour		7.50
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)	\$/pound		0.22
Phosphate (P205)	\$/pound		0.27
Seed:			
Alfalfa	\$/pound		3.05
Oats	\$/pound		0.34
Pasture	\$/pound		2.60
Wire	\$/pound		1.32
Canal Water	\$/acre foot		10.75
Energy:			
Diesel fuel	\$/gallon		2.35
Gasoline	\$/gallon		2.10
Natural Gas	\$/MCF		4.00
LP Gas	\$/gallon		2.60
Electricity	cents/KwHr		12.31
Employee Liability Insurance	\$/\$1,000	wages	12.00
Employee Benefits	percent/w	ages	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%
Real Interest Rate	percent		4.00%
Land Taxes	253.00 /acre	(full value)	2.07
Personal Property Tax Rate - NR	\$/\$1,000	(Assessed Value)	24.64
	- R		28.89
Supervision Factors			
Field Crop-Irrigation	\$/labor hour		1.00
Field Crop-Equipment & General	\$/labor hour		0.50
Management Rate	percent		4.00%

TABLE 1a. Overhead cost information for San Juan County. Projected 2017

ITEM		CROP ENTERPRISE	LIVESTOCK ENTERPRISE	TOTAL
Electricity (Domestic & Shop)	36.30 per month	420	42	462
Telephone	36.30 per month	420	42	462
Accounting & Legal		130		139
Misc. Supplies & Hand Tools		245	25	306
Pickup and Auto	Crop Ent. Livestock Ent. miles 3,100 1,545 @	0.500 per mile	1,132	564
				1,695
Insurance				
- general liability (non-employee)		0		0
- fire/theft		0		0
Property Taxes				
- non-planted land		0		0
- other than land & machinery		60		60
Building repairs and maintenance		115	12	133
Dues, fees, publications		115	6	127
Farmstead Equipment		175	18	213
Total		2,812	707	3,519
Total per planted acre		137.15		

TABLE 2a. Equipment summary for a 20 acre flood-irrigated part-time farm, San Juan (

EQUIPMENT ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	VARIABLE COSTS		
			TOTAL FUEL, OIL VALUE	BRICANT	REPAIR
TRACTOR 65 HP	36.2	1	2400	237.6059	8.9595
MOWER 7 FT	12.825	1	1300		7.3359
RAKE	7.41	1	750		2.4453
DISC 6 FT (BORROWED)	1.68	1	0		0
PLOW 3-14 (BORROWED)	1.66	1	0		0
HARROW 8 FT	8.815	1	200		0.07052
DITCHER (BORROWED)	2.1	1	0		0
DRILL 10 FT (BORROWED)	0.66	1	0		0
FERT SPREADER DEALER FUI	1.05	1			
			4,650	238	19

Table 2b. Value of Resources for Livestock Enterprise

	UNIT	QUANTITY
Cattle:		
Cows	NO	0
Replacement Heifers	NO	0
Yearling Heifers	NO	0
Yearlings Steers	NO	ACRES
Bulls	NO	0
Horses	NO	0
Subtotal		
Other Range Facilities:		
Fencing		
- Permanent	MI	6
- temporary	MI	11
Pipelines	MI	2
Tanks and Reservoirs	NO	2
Corrals	NO	1

Livestock Trailer

NO

1

Subtotal

Total

County

TS		FIXED COSTS		
FUEL,OIL PER HR	REPAIR PER HR	DEPRE- CIATION	TAXES	TOTAL PER HOUR
6.5637	0.2475	137.5	22.55	4.421271
	0.572	130	10.66	10.96764
	0.33	75	6.15	10.95142
	0			
	0			
	0.008	20	1.64	2.454906
	0			
	0			
		363	41	

<u>\$/UNIT</u>	<u>TOTAL</u>	<u>USEFUL LIFE</u>	<u>PRECIATION</u>
650	0		
650	0		
462	0		
564	0		
1000	0		
1000	0		
	<hr/> 0		
1500	9000	25	360
250	2750	10	275
300	600	20	30
500	1000	40	25
5000	5000	25	200

2500	2500	10	250
<hr/>			
	20,850		
	20850		1140

Table 3a. Livestock Production Parameters

NUMBER OF COWS	0
COWS PER BULL	0
NUMBER OF HORSES	0
REPLACEMENT RATE (%)	0
CALF DEATH LOSS (%)	0.03
YEARLING DEATH LOSS (%)	0.0125
COW DEATH LOSS (%)	0.01
BULL DEATH LOSS (%)	0
CALF CROP (%)	0.9
PRODUCTIVE LIFE OF BULLS	5
CALVES PURCHASED	
HEIFERS	0
STEERS	20

Table 3b. Forage Sources for Livestock

	ACRES	AUMS/ ACRE	AUMS PROVIDED
ALFALFA	9.00	1.40	12.60
PERMANENT PASTURE	10	7	70
BALED HAY (TONS)		0.56	1.4
TOTAL	<u>19.00</u>		<u>84.00</u>

Table 3c. STOCK COUNT CHART

SEASON	TOTAL YEARLING YEARLING STEERS HEIFERS REQUIRED		AUMs
	0.7	0.7	
JANUARY			0
FEBUARY			0
MARCH			0
APRIL			0
MAY	20		14
JUNE	20		14
JULY	20		14
AUGUST	20		14

SEPTEMB	20	14
OCTOBEF	20	14
NOVEMBER		0
DECEMBER		0
		<u>84</u>

Table 3d. FORAGE BALANCE CHART

	TOTAL AUMs REQUIRED	PERMANENT ALFALFA PASTURE	TOTAL AUMs SUPPLIED	HAY
JANUARY	0	0	0	0
FEBRUAR	0	0	0	0
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	14	0	14	0
JUNE	14	0	14	0
JULY	14	0	14	0
AUGUST	14	0	14	0
SEPTEMB	14	0	14	0
OCTOBEF	14	12.6	0	12.6
NOVEMBE	0	0	0	0
DECEMBE	0	0	0	0
Total AUI	84	12.6	70	82.6

TABLE 4. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 20 acre part-time farm, San Juan County. Projected 2017
 Planting dates: April 15 - June 1
 Harvest dates: June 15 - July 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OAT HAY	100.00	2.00 TONS (IN FIELD)						200.00
TOTAL								200.00
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS				TOTAL
ALFALFA SEED	2.80	20.00 LBS	56.00					56.00
OAT SEED	0.30	45.00 LBS	13.50					13.50
PHOSPHATE (P2O5)	0.20	45.00 LBS	9.00					9.00
CANAL WATER		48.00 AC. IN.				75.00		75.00
CANAL WATER (MAINTENANCE)		1 ACRE				8.00		8.00
SUBTOTAL			78.50			83.00		161.50
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	65 HP	0.83 HR		5.60	5.85	0.21	3.71	15.37
DISC (2X)	65 HP	0.84 HR		5.67	5.92	0.21	3.75	15.55
FERTILIZE	65 HP	0.05 HR		0.34	0.35	0.01	0.22	0.93
CORRUGATE	65 HP	0.41 HR		2.77	2.89	0.10	2.84	8.61
DRILL	65 HP	0.33 HR		2.23	2.33	0.08	1.47	6.11
DITCHER	65 HP	0.10 HR		0.68	0.70	0.02	0.45	1.85
IRRIGATE (6X)		3.00 HR		19.35				19.35
SUBTOTAL		5.56 HR		36.63	18.05	0.64	12.45	67.76
HARVEST OPERATIONS								
MOWER	65 HP	0.45 HR		3.04	3.17	0.37	6.97	13.55
RAKE	65 HP	0.26 HR		1.76	1.83	0.15	4.02	7.76
BALER (CUSTOM)			65.60					65.60
SUBTOTAL		0.71 HR	65.60	4.79	5.01	0.52	11.00	86.91
OVERHEAD EXPENSES								
DOWNTIME		2.43 HR		16.37				16.37
EMPLOYEE BENEFITS				4.97				4.97
INSURANCE			0.50					0.50
LAND TAXES							2.23	2.23
SUPERVISION AND MANAGEMENT				13.81				13.81
OTHER EXPENSES			144.71					144.71
SUBTOTAL		2.43 HR	145.21	35.14			2.23	182.58
TOTAL OPERATING EXPENSES		8.70 HR	289.31	76.57	23.05	1.16	108.67	498.76
NET OPERATING PROFIT								-298.76
INTEREST ON OPERATING CAPITAL (49.85 @	0.07)					3.24
INTEREST ON EQUIPMENT INVESTMENT								21.43
RETURN TO LAND AND RISK								-323.43

TABLE 5. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 20 acre part-time farm,
 San Juan County
 Projected 2017
 Harvesting dates: June 10 - October 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	165.00	5.50	TONS (IN FIELD)					907.50
GRAZING	10.00	1.40	AUM					14.00
TOTAL								921.50
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL	
PHOSPHATE (P2O5)	0.27	45.00	LBS	12.15			12.15	
ESTABLISHMENT: Principal		6.00	YEARS			53.90	53.90	
: Interest						17.24	17.24	
LIVESTOCK FAC & EQUIP						5.00	5.00	
CANAL WATER		60.00	AC. IN.			93.75	93.75	
CANAL WATER (MAINTENANCE)			1 ACRE			8.00	8.00	
SUBTOTAL				12.15	177.90		190.05	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	65 HP	0.05 HR		0.34	0.35	0.01	0.22	0.93
DITCHER	65 HP	0.10 HR		0.68	0.70	0.02	0.45	1.85
CORRUGATE	65 HP	0.41 HR		2.77	2.89	0.10	2.84	8.61
IRRIGATE (10X)		5.00 HR		32.25				32.25
SUBTOTAL		5.56 HR		36.03	3.95	0.14	3.51	43.63
HARVEST OPERATIONS								
MOWER (3X)	65 HP	1.35 HR		9.11	9.52	1.11	20.92	40.66
RAKE (3X)	65 HP	0.78 HR		5.27	5.50	0.45	12.07	23.29
BALER (CUSTOM)			180.40					180.40
SUBTOTAL		2.13 HR	180.40	14.38	15.02	1.56	32.99	244.34
OVERHEAD EXPENSES								
DOWNTIME		0.55 HR		3.68				3.68
EMPLOYEE BENEFITS				6.05				6.05
INSURANCE			0.60					0.60
LAND TAXES							2.23	2.23
SUPERVISION AND MANAGEMENT				42.95				42.95
OTHER EXPENSES			144.71					144.71
SUBTOTAL		0.55 HR	145.32	52.68			2.23	200.22
TOTAL OPERATING EXPENSES		8.24 HR	337.87	103.09	18.96	1.70	216.63	678.25
NET OPERATING PROFIT								243.25
INTEREST ON OPERATING CAPITAL	(23.51	@	0.07)			1.53
INTEREST ON EQUIPMENT INVESTMENT								27.91
RETURN TO LAND AND RISK								213.81

BUDGET SUMMARY

GROSS RETURN		921.50	
VARIABLE OPERATING EXPENSES	358.53		
RETURN OVER VARIABLE EXPENSES		562.97	(GROSS MARGIN)
FIXED EXPENSES	216.63		
NET FARM INCOME		346.34	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	103.09		
NET OPERATING PROFIT		243.25	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	29.44		
RETURN TO LAND AND RISK		213.81	

TABLE 6. Permanent pasture establishment, flood-irrigated, budgeted per acre costs and returns for a 20 acre part-time farm, San Juan County. Projected 2017
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST		TOTAL	
PURCHASED INPUTS								
SEED	2.50	15.00 LBS	37.50				37.50	
NITROGEN (N)	0.29	20.00 LBS	5.80				5.80	
PHOSPHATE (P205)	0.20	50.00 LBS	10.00				10.00	
CANAL WATER		21.00 AC. IN.			32.81		32.81	
CANAL WATER (MAINTENANCE)					8.00		8.00	
SUBTOTAL			53.30		40.81		94.11	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	65 HP	0.83 HR		5.60	5.85	0.21	3.71	15.37
DISC (2X)	65 HP	0.84 HR		5.67	5.92	0.21	3.75	15.55
HARROW	65 HP	0.41 HR		2.77	2.89	0.10	2.84	8.61
FERTILIZE	65 HP	0.05 HR		0.34	0.35	0.01	0.22	0.93
CORRUGATE	65 HP	0.41 HR		2.77	2.89	0.10	2.84	8.61
DRILL	65 HP	0.33 HR		2.23	2.33	0.08	1.47	6.11
DITCHER	65 HP	0.10 HR		0.68	0.70	0.02	0.45	1.85
IRRIGATE (3X)		1.50 HR		9.68				9.68
SUBTOTAL		4.47 HR		29.72	20.94	0.74	15.29	66.69
OVERHEAD EXPENSES								
DOWNTIME		0.74 HR		5.01				5.01
EMPLOYEE BENEFITS				3.57				3.57
INSURANCE			0.36					0.36
SUPERVISION AND MANAGEMENT				9.42				9.42
SUBTOTAL		0.74 HR	0.36	18.00				18.35
TOTAL OPERATING EXPENSES		5.21 HR	53.66	47.72	20.94	0.74	56.10	179.16

TABLE 7. Permanent pasture, flood-irrigated, budgeted per acre costs and returns for a 20 acre part-time farm, San Juan County. Projected 2017
Harvesting dates: Year Round

ITEM	PRICE	YIELD		TOTAL				
GROSS RETURNS								
PASTURE	12.00	7.00	AUMS		84.00			
TOTAL					84.00			
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL		
NITROGEN (N)	0.29	100.00	LBS	29.00		29.00		
ESTABLISHMENT: Principal		20.00	YEARS		8.96	8.96		
: Interest					5.02	5.02		
CANAL WATER		62.00	AC. IN.		96.88	96.88		
CANAL WATER (MAINTENANCE)		1	ACRE		8.00	8.00		
SUBTOTAL				29.00	118.85	147.85		
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	65 HP	0.05 HR		0.34	0.35	0.01	0.22	0.93
CORRUGATE	65 HP	0.41 HR		2.77	2.89	0.10	2.84	8.61
DITCHER	65 HP	0.10 HR		0.68	0.70	0.02	0.45	1.85
IRRIGATE (11X)		5.50 HR		35.48				35.48
SUBTOTAL		6.06 HR		39.26	3.95	0.14	3.51	46.86
OVERHEAD EXPENSES								
DOWNTIME		0.14 HR		0.95				0.95
EMPLOYEE BENEFITS				4.71				4.71
INSURANCE			0.47					0.47
LAND TAXES							2.23	2.23
SUPERVISION AND MANAGEMENT				9.14				9.14
OTHER EXPENSES			144.71					144.71
SUBTOTAL		0.14 HR		145.18	14.80		2.23	162.21
TOTAL OPERATING EXPENSES		6.20 HR		174.18	54.05	3.95	0.14	124.59
NET OPERATING PROFIT								-272.91
INTEREST ON OPERATING CAPITAL	(15.52	@	0.07)			1.01
INTEREST ON EQUIPMENT INVESTMENT								3.37
RETURN TO LAND AND RISK								-277.29

PASTURE LIVESTOCK
-0.06736 0.01

BUDGET SUMMARY

GROSS RETURN		84.00	
VARIABLE OPERATING EXPENSES	178.27		
RETURN OVER VARIABLE EXPENSES		-94.27	(GROSS MARGIN)
FIXED EXPENSES	124.59		
NET FARM INCOME		-218.86	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	54.05		
NET OPERATING PROFIT		-272.91	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	4.38		
RETURN TO LAND AND RISK		-277.29	

TABLE 8. Summary of per acre costs and returns for a 20 acre part-time farm,
San Juan County. Projected 2017

	ALFALFA ESTABLISHMENT	ALFALFA HAY	ANNUAL PASTURE EST.	ANNUAL PASTURE
	TONS	TONS	-----FLOOD-----	AUMS
PRIMARY YIELD	2.00	5.50		7.00
PRIMARY PRICE	100.00	165.00		12.00
GOVERNMENT PAYMENTS	0.00	0.00		0.00
SECOND INCOME	0.00	14.00		0.00
GROSS RETURN	200.00	921.50		84.00
CASH OPERATING EXPENSES				
SEED	69.50		37.50	
FERTILIZER	9.00	12.15	15.80	29.00
CHEMICALS				
CROP INSURANCE				
OTHER PURCHASED INPUTS	0.00	0.00	0.00	0.00
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	23.05	18.96	20.94	3.95
FUEL-IRRIGATION				
REPAIRS	1.16	1.70	0.74	0.14
CUSTOM CHARGES	65.60	180.40		
LAND TAXES	2.23	2.23		2.23
OTHER EXPENSES	145.21	145.32	0.36	145.18
TOTAL CASH EXPENSES	315.75	360.76	75.34	180.50
RETURN OVER CASH EXPENSES	-115.75	560.74	-75.34	-96.50
FIXED EXPENSES	106.45	214.40	56.10	122.36
TOTAL EXPENSES	422.19	575.16	131.44	302.86
NET FARM INCOME	-222.19	346.34	-131.44	-218.86
LABOR AND MANAGEMENT COSTS	76.57	103.09	47.72	54.05
NET OPERATING PROFIT	-298.76	243.25	-179.16	-272.91
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL	3.24	1.53		1.01
INTEREST ON EQUIPMENT INVESTMENT	21.43	27.91		3.37
TOTAL CAPITAL COSTS	24.67	29.44	0.00	4.38
RETURN TO LAND AND RISK	-323.43	213.81	-179.16	-277.29

TABLE 9. Whole farm summary, San Juan County. Projected 2017

GROSS RETURNS		
OAT HAY	1.50 ACRES	
CROP		300.00
GRAZING		0.00
ALFALFA HAY	9.00 ACRES	
CROP		8,167.50
GRAZING		126.00
PASTURE	10.00 ACRES	
GRAZING		840.00
LIVESTOCK		15,384.00
GROSS RETURN		<u>24,818</u>
CASH OPERATING EXPENSES		
FORAGE		966.00
FEED AND LIVESTOCK		11,650.78
SEED		123.00
FERTILIZER		420.75
CHEMICALS		0.00
CROP INSURANCE		0.00
OTHER PURCHASED INPUTS		0.00
CANAL WATER		0.00
FUEL, OIL & LUBRICANTS-EQUIPMENT		255.21
FUEL-IRRIGATION		0.00
REPAIRS		18.81
CUSTOM CHARGES		1,722.00
LAND TAXES		45.66
OTHER EXPENSES		3,699.11
TOTAL CASH EXPENSES		<u>18,901</u>
RETURN OVER CASH EXPENSES		5,916.18
FIXED EXPENSES		3,906.25
TOTAL EXPENSES		22,807.56
NET FARM INCOME		2,009.94
LABOR AND MANAGEMENT COSTS		2,179.89
NET OPERATING PROFIT		-169.96
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		28.70
INTEREST ON EQUIPMENT INVESTMENT		317.06
INTEREST ON LIVESTOCK ENTERPRISE		2,145.82
TOTAL CAPITAL COSTS		<u>2,492</u>
RETURN TO LAND AND RISK		<u>-2,661.55</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
1,000.00 /ACRE	-3,461.55	-0.01
2,500.00 /ACRE	-4,661.55	0.00
4,000.00 /ACRE	-5,861.55	0.00
5,500.00 /ACRE	-7,061.55	0.00
7,000.00 /ACRE	-8,261.55	0.00
8,500.00 /ACRE	-9,461.55	0.00

* 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)