

TABLE 1. Basic cost information for San Juan County, 2003.

Item			
Labor Wage Rate:			
Equipment operators		\$/hour	\$6.75
General & Irrigators		\$/hour	\$6.45
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)		\$/pound	\$0.36
Phosphate (P205)		\$/pound	\$0.33
Anhydrous Ammonia (NH3)		\$/ton	\$310.00
Seed:			
Alfalfa		\$/pound	\$3.00
Oats		\$/pound	\$0.40
Pasture		\$/pound	\$2.50
Corn		\$/bag	\$89.75
Wire		\$/pound	\$0.39
Canal Water		\$/acre foot	\$10.75
Energy:			
Diesel fuel		\$/gallon	\$1.30
Gasoline		\$/gallon	\$1.35
Natural Gas		\$/MCF	\$3.28
LP Gas		\$/gallon	\$1.21
Electricity		cents/KwHr	8.87
Employee Liability Insurance		\$/ \$1,000 wages	\$20.00
Employee Benefits		percent/w ages	18.00%
Labor Downtime		percent	25.00%
Financial Rates:			
Operating Capital Interest Rate		percent	8.00%
Land Interest Rate		percent	7.00%
Equipment Interest Rate		percent	8.00%
Real Interest Rate		percent	4.00%
Land Taxes	\$253.00	/acre (full value)	\$2.07
Personal Property Tax Rate - NR		\$/ \$1,000 (Assessed Value)	\$24.60
- R			\$20.83
Supervision Factors			
Field Crop-Irrigation		\$/labor hour	\$1.00
Field Crop-Equipment & General		\$/labor hour	\$0.50
Management Rate		percent	7.00%

TABLE 1a. Overhead cost information for San Juan County, 2003.

ITEM			
Electricity (Domestic & Shop)		\$120.00 per month	\$1,440
Telephone		\$75.00 per month	\$900
Accounting & Legal			\$490
Misc. Supplies & Hand Tools			\$825
Pickup and Auto			
miles	10,300	@ \$0.365 per mile	\$3,760
Insurance			
- general liability (non-employee)			\$1,020
- fire/theft			\$610
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$320
Building repairs and maintenance			\$510
Dues, fees, publications			\$245
Farmstead Equipment			\$165
Total			\$10,284
Total per planted acre			\$138.97

TABLE 2. Equipment summary for an 80 acre flood-irrigated farm, San Juan County, 2003.

EQUIPMENT		VARIABLE COSTS						FIXED COSTS		
ITEM & SIZE	ANNUAL HOURS OF USE	NUMBE	TOTAL VALUE	FUEL AND LUBRICANT	FUEL,LUBE REPAIR	PER HR	REPAIR PER HR	DEPRE-CIATION	TAXES	TOTAL PER HOUR
TRACTOR 40 HP	39	1	\$1,600	\$156	\$7	\$4.04	\$0.19	\$50	\$10	\$1.56
TRACTOR 95 HP	102	1	\$19,240	\$975	\$196	\$9.59	\$1.93	\$1,430	\$176	\$15.81
SWATHER 14 FT	17	1	\$4,300	\$87	\$15	\$5.05	\$0.87	\$1,450	\$119	\$90.79
BALER, PTO 2-WIRE	23	1	\$1,500		\$10		\$0.46	\$385	\$32	\$18.37
BALEWAGON, PTO	22	1	\$1,650		\$48		\$2.24	\$800	\$66	\$40.07
DISC 12 FT	9	1	\$2,250		\$21		\$2.25	\$180	\$18	\$21.62
PLOW 3-14 IN	18	1	\$3,350		\$47		\$2.61	\$268	\$27	\$16.33
SILAGE CHOPPER, PTO	14	1	\$5,470		\$5		\$0.37	\$920	\$75	\$70.10
UNLOADING WAGON	14	1	\$3,850		\$20		\$1.39	\$385	\$32	\$29.34
DITCHER	6	1	\$1,250		\$0		\$0.05	\$100	\$10	\$18.07
HARROW 12 FT	5	1	\$300		\$2		\$0.37	\$24	\$2	\$5.16
DRILL 12 FT	1	1	\$2,200		\$2		\$1.06	\$220	\$18	\$161.93
PLANTER 4 ROW	5	1	\$3,400		\$8		\$1.63	\$340	\$28	\$70.75
CULTIVATOR 4 ROW	18	1	\$2,000		\$29		\$1.56	\$160	\$16	\$9.66
FERT SPREADER DEALER FURNI:	4	1								
			\$52,360	\$1,218	\$411			\$6,712	\$630	

TABLE 3. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, 2003.
 Planting dates: April 15 - June 1
 Harvest dates: June 1 - July 31

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OAT HAY	\$130.00	2.25 TONS (STACKED)						\$292.50
GRAZING	\$10.00	1 AUM						\$10.00
TOTAL							\$302.50	
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL	
ALFALFA SEED	\$3.00	20 LBS	\$60.00				\$60.00	
OAT SEED	\$0.40	45 LBS	\$18.00				\$18.00	
PHOSPHATE (P2O5)	\$0.33	45 LBS	\$14.85				\$14.85	
WIRE	\$0.39	19 LBS	\$7.52				\$7.52	
CANAL WATER		48 AC. IN.				\$43.00	\$43.00	
CANAL WATER (MAINTENANCE)		1 ACRE				\$8.00	\$8.00	
SUBTOTAL			\$100.37			\$51.00	\$151.37	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$4.52	\$6.43	\$3.04	\$21.54	\$35.53
DISC (2X)	96 HP	0.34 HR		\$2.30	\$3.26	\$1.42	\$12.73	\$19.70
HARROW	96 HP	0.19 HR		\$1.28	\$1.82	\$0.44	\$3.98	\$7.53
FERTILIZE	96 HP	0.05 HR		\$0.34	\$0.48	\$0.10	\$0.79	\$1.70
CORRUGATE	40 HP	0.21 HR		\$1.42	\$0.85	\$0.37	\$2.36	\$4.99
DRILL	96 HP	0.21 HR		\$1.42	\$2.01	\$0.63	\$37.33	\$41.39
DITCHER (2X)	40 HP	0.10 HR		\$0.68	\$0.40	\$0.02	\$1.96	\$3.07
IRRIGATE (6X)		3.00 HR		\$19.35				\$19.35
SUBTOTAL		4.77 HR		\$31.30	\$15.26	\$6.02	\$80.68	\$133.25
HARVEST OPERATIONS								
SWATHER	14 FT	0.16 HR		\$1.08	\$0.81	\$0.14	\$14.53	\$16.55
BALER	96 HP	0.21 HR		\$1.42	\$2.01	\$0.50	\$7.18	\$11.11
BALE WAGON	96 HP	0.20 HR		\$1.35	\$1.92	\$0.83	\$11.18	\$15.28
SUBTOTAL		0.57 HR		\$3.85	\$4.74	\$1.48	\$32.88	\$42.95
OVERHEAD EXPENSES								
DOWNTIME		2.16 HR		\$14.60				\$14.60
EMPLOYEE BENEFITS				\$6.33				\$6.33
INSURANCE			\$0.70					\$0.70
LAND TAXES							\$2.07	\$2.07
SUPERVISION AND MANAGEMENT				\$24.09				\$24.09
SUBTOTAL		2.16 HR	\$0.70	\$45.02			\$2.07	\$47.79
TOTAL OPERATING EXPENSES		7.50 HR	\$101.07	\$80.16	\$20.00	\$7.49	\$166.64	\$375.36
NET OPERATING PROFIT							(\$72.86)	
INTEREST ON OPERATING CAPITAL	(\$56.02	@	8.00%)			\$4.48
INTEREST ON EQUIPMENT INVESTMENT								\$98.02
RETURN TO LAND AND RISK							(\$175.36)	

TABLE 4. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, 2003.
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$140.00	5.50 TONS (STACKED)						\$770.00	
GRAZING	\$10.00	2.00 AUM						\$20.00	
TOTAL								\$790.00	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
PHOSPHATE (P2O5)	\$0.33	45 LBS	\$14.85						\$14.85
INSECTICIDE (AERIAL)	\$17.25	1 ACRE	\$17.25						\$17.25
WIRE	\$0.39	47 LBS	\$18.38						\$18.38
ESTABLISHMENT: Principal		6 YEARS					\$29.23	\$29.23	
: Interest							\$16.98	\$16.98	
LIVESTOCK FAC & EQUIP							\$5.00	\$5.00	
CANAL WATER		60 AC. IN.					\$53.75	\$53.75	
CANAL WATER (MAINTENANCE)		1 ACRE					\$8.00	\$8.00	
SUBTOTAL			\$50.49				\$112.96	\$163.44	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
FERTILIZE	96 HP	0.05 HR		\$0.34	\$0.48	\$0.10	\$0.79	\$1.70	
DITCHER (2X)	40 HP	0.10 HR		\$0.68	\$0.40	\$0.02	\$1.96	\$3.07	
IRRIGATE (10X)		5.00 HR		\$32.25				\$32.25	
SUBTOTAL		5.15 HR		\$33.26	\$0.88	\$0.12	\$2.75	\$37.02	
HARVEST OPERATIONS									
SWATHER (3X)	14 FT	0.48 HR		\$3.24	\$2.43	\$0.42	\$43.58	\$49.66	
BALER (3X)	96 HP	0.63 HR		\$4.25	\$6.04	\$1.51	\$21.53	\$33.34	
BALE WAGON (3X)	96 HP	0.60 HR		\$4.05	\$5.76	\$2.50	\$33.53	\$45.84	
SUBTOTAL		1.71 HR		\$11.54	\$14.23	\$4.43	\$98.64	\$128.84	
OVERHEAD EXPENSES									
DOWNTIME		0.44 HR		\$2.97				\$2.97	
EMPLOYEE BENEFITS				\$8.06				\$8.06	
INSURANCE			\$0.90				\$0.90		
LAND TAXES						\$2.07	\$2.07		
SUPERVISION AND MANAGEMENT				\$61.18				\$61.18	
OTHER EXPENSES			\$138.97				\$138.97		
SUBTOTAL		0.44 HR	\$139.87	\$72.21				\$214.16	
TOTAL OPERATING EXPENSES		7.30 HR	\$190.35	\$117.02	\$15.11	\$4.55	\$216.43	\$543.46	
NET OPERATING PROFIT								\$246.54	
INTEREST ON OPERATING CAPITAL	(\$27.05	@	8.00%				\$2.16	
INTEREST ON EQUIPMENT INVESTMENT								\$82.08	
RETURN TO LAND AND RISK								\$162.30	

BUDGET SUMMARY

GROSS RETURN		\$790.00	
VARIABLE OPERATING EXPENSES	\$210.01		
RETURN OVER VARIABLE EXPENSES		\$579.99	(GROSS MARGIN)
FIXED EXPENSES	\$216.43		
NET FARM INCOME		\$363.56	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$117.02		
NET OPERATING PROFIT		\$246.54	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$84.24		
RETURN TO LAND AND RISK		\$162.30	

TABLE 5. Permanent pasture establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, 2003.
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
PURCHASED INPUTS							FIXED COST	
SEED	\$2.50	14 LBS		\$35.00				\$35.00
NITROGEN (N)	\$0.36	20 LBS		\$7.20				\$7.20
PHOSPHATE (P205)	\$0.33	50 LBS		\$16.50				\$16.50
CANAL WATER		21 AC. IN.				\$18.81		\$18.81
CANAL WATER (MAINTENANCE)						\$8.00		\$8.00
SUBTOTAL				\$58.70		\$18.81		\$77.51
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$4.52	\$6.43	\$3.04	\$21.54	\$35.53
DISC (2X)	96 HP	0.34 HR		\$2.30	\$3.26	\$1.42	\$12.73	\$19.70
HARROW	96 HP	0.19 HR		\$1.28	\$1.82	\$0.44	\$3.98	\$7.53
FERTILIZE	96 HP	0.05 HR		\$0.34	\$0.48	\$0.10	\$0.79	\$1.70
CORRUGATE	40 HP	0.21 HR		\$1.42	\$0.85	\$0.37	\$2.36	\$4.99
DRILL	96 HP	0.21 HR		\$1.42	\$2.01	\$0.63	\$37.33	\$41.39
DITCHER (2X)	40 HP	0.10 HR		\$0.68	\$0.40	\$0.02	\$1.96	\$3.07
IRRIGATE (3X)		1.50 HR		\$9.68				\$9.68
SUBTOTAL		3.27 HR		\$21.62	\$15.26	\$6.02	\$80.68	\$123.58
OVERHEAD EXPENSES								
DOWNTIME		0.44 HR		\$2.99				\$2.99
EMPLOYEE BENEFITS				\$3.89				\$3.89
INSURANCE			\$0.43					\$0.43
SUPERVISION AND MANAGEMENT				\$16.46				\$16.46
SUBTOTAL		0.44 HR	\$0.43	\$23.34				\$23.77
TOTAL OPERATING EXPENSES		3.71 HR	\$59.13	\$44.96	\$15.26	\$6.02	\$99.49	\$224.86

TABLE 6. Permanent pasture, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, 2003.
Harvesting dates: Year Round

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
PASTURE	\$12.00	12.00 AUMS						\$144.00
TOTAL								\$144.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
NITROGEN (N)	\$0.36	100 LBS	\$36.00					\$36.00
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		15 YEARS					\$5.00	\$5.00
: Interest							\$14.99	\$14.99
CANAL WATER		62 AC. IN.					\$6.29	\$6.29
CANAL WATER (MAINTENANCE)		1 ACRE					\$55.54	\$55.54
							\$8.00	\$8.00
SUBTOTAL			\$36.00				\$89.82	\$125.82
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	96 HP	0.05 HR		\$0.34	\$0.48	\$0.10	\$0.79	\$1.70
CORRUGATE	40 HP	0.21 HR		\$1.42	\$0.85	\$0.37	\$2.36	\$4.99
DITCHER (2X)	40 HP	0.10 HR		\$0.68	\$0.40	\$0.02	\$1.96	\$3.07
IRRIGATE (11X)		5.50 HR		\$35.48				\$35.48
SUBTOTAL		5.86 HR		\$37.91	\$1.73	\$0.49	\$5.11	\$45.23
OVERHEAD EXPENSES								
DOWNTIME		0.09 HR		\$0.61				\$0.61
EMPLOYEE BENEFITS				\$6.82				\$6.82
INSURANCE			\$0.76					\$0.76
LAND TAXES							\$2.07	\$2.07
SUPERVISION AND MANAGEMENT				\$15.76				\$15.76
OTHER EXPENSES			\$138.97					\$138.97
SUBTOTAL		0.09 HR	\$139.73	\$23.19			\$2.07	\$164.99
TOTAL OPERATING EXPENSES		5.95 HR	\$175.73	\$61.10	\$1.73	\$0.49	\$97.01	\$336.05
NET OPERATING PROFIT								(\$192.05)
INTEREST ON OPERATING CAPITAL	(\$18.55	@	8.00%)			\$1.48
INTEREST ON EQUIPMENT INVESTMENT								\$5.13
RETURN TO LAND AND RISK								(\$198.66)

BUDGET SUMMARY

GROSS RETURN	\$144.00	
VARIABLE OPERATING EXPENSES	\$177.95	
RETURN OVER VARIABLE EXPENSES	(\$33.95)	(GROSS MARGIN)
FIXED EXPENSES	\$97.01	
NET FARM INCOME	(\$130.95)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$61.10	
NET OPERATING PROFIT	(\$192.05)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$6.61	
RETURN TO LAND AND RISK	(\$198.66)	

TABLE 8. Summary of per acre costs and returns for an 80 acre farm, San Juan County, 2002.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	ANNUAL PASTURE EST.	ANNUAL PASTURE	CORN FOR SILAGE
	-----FLOOD-----				
	TONS	TONS		AUMS	TONS
PRIMARY YIELD	2.25	5.50		12.00	21.00
PRIMARY PRICE	130.00	140.00		12.00	31.00
GOVERNMENT PAYMENTS	0.00	0.00		0.00	0.00
SECOND INCOME	10.00	20.00		0.00	0.00
GROSS RETURN	\$302.50	\$790.00		\$144.00	\$651.00
CASH OPERATING EXPENSES					
SEED	\$78.00		\$35.00		\$33.66
FERTILIZER	\$14.85	\$14.85	\$23.70	\$36.00	\$34.88
CHEMICALS		\$17.25			\$16.00
CROP INSURANCE					
OTHER PURCHASED INPUTS	\$7.52	\$18.38	\$0.00	\$0.00	\$0.00
CANAL WATER					
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$20.00	\$15.11	\$15.26	\$1.73	\$26.71
FUEL-IRRIGATION					
REPAIRS	\$7.49	\$4.55	\$6.02	\$0.49	\$9.78
CUSTOM CHARGES					
LAND TAXES	\$2.07	\$2.07		\$2.07	\$2.07
OTHER EXPENSES	\$0.70	\$139.87	\$0.43	\$139.73	\$140.13
TOTAL CASH EXPENSES	\$130.64	\$212.09	\$80.41	\$180.02	\$263.22
RETURN OVER CASH EXPENSES	\$171.86	\$577.91	(\$80.41)	(\$36.02)	\$387.78
FIXED EXPENSES	\$164.56	\$214.35	\$99.49	\$94.93	\$202.54
TOTAL EXPENSES	\$295.20	\$426.44	\$179.90	\$274.95	\$465.76
NET FARM INCOME	\$7.30	\$363.56	(\$179.90)	(\$130.95)	\$185.24
LABOR AND MANAGEMENT COSTS	\$80.16	\$117.02	\$44.96	\$61.10	\$126.17
NET OPERATING PROFIT	(\$72.86)	\$246.54	(\$224.86)	(\$192.05)	\$59.07
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL	\$4.48	\$2.16		\$1.48	\$3.95
INTEREST ON EQUIPMENT INVESTMENT	\$98.02	\$82.08		\$5.13	\$129.78
TOTAL CAPITAL COSTS	\$102.50	\$84.24	\$0.00	\$6.61	\$133.72
RETURN TO LAND AND RISK	(\$175.36)	\$162.30	(\$224.86)	(\$198.66)	(\$74.65)

TABLE 9. Whole farm summary, San Juan County, 2002.

GROSS RETURNS		
OAT HAY	6 ACRES	
CROP		\$1,755
GRAZING		\$60
ALFALFA HAY	34 ACRES	
CROP		\$26,180
GRAZING		\$680
PASTURE	20 ACRES	
GRAZING		\$2,880
CORN FOR SILAGE	20 ACRES	
CROP		\$13,020
GROSS RETURN		\$44,575
CASH OPERATING EXPENSES		
SEED		\$1,176
FERTILIZER		\$2,035
CHEMICALS		\$907
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$670
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,218
FUEL-IRRIGATION		\$0
REPAIRS		\$411
CUSTOM CHARGES		\$0
LAND TAXES		\$166
OTHER EXPENSES		\$10,357
TOTAL CASH EXPENSES		\$16,940
RETURN OVER CASH EXPENSES		\$27,635
FIXED EXPENSES		\$13,031
TOTAL EXPENSES		\$29,971
NET FARM INCOME		\$14,604
LABOR AND MANAGEMENT COSTS		\$8,250
NET OPERATING PROFIT		\$6,354
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$209
INTEREST ON EQUIPMENT INVESTMENT		\$6,077
TOTAL CAPITAL COSTS		\$6,286
RETURN TO LAND AND RISK		\$68

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	(\$3,132)	4.80%
\$2,500 /ACRE	(\$7,932)	2.52%
\$4,000 /ACRE	(\$12,732)	1.71%
\$5,500 /ACRE	(\$17,532)	1.29%
\$7,000 /ACRE	(\$22,332)	1.04%
\$8,500 /ACRE	(\$27,132)	0.87%

* 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)