TABLE 1. Acreage Summary, San Juan County, Actual 2024

BUDGET AREA.....SAN JUAN COUNTY
FARM SIZE.....24 ACRES
IRRIGATION TYPE.....FLOOD
NUMBER OF CROPS....2

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE AC.IN. PER AC.	WATER USE TOTAL AC.IN.
ALFALFA	6.00	60	360
CORN	18.00	30	540
TOTAL	24.00		900
ACRE FEET PER ACRE OF WATER RIGHTS			3.13

TABLE 2. Basic cost information for San Juan County, Actual 2024

Item				
Labor Wage Rate:				
Equipment operators		$/hour		$17.92
General & Irrigators		$/hour		$16.77
Purchased Inputs:				
Fertilizer:				
Nitrogen (N)		$/pound		$0.87
Phosphate (P205)		$/pound		$0.45
Anhydrous Ammonia (NH3)		$/ton		$745.00
Seed:				
Alfalfa		$/pound		$4.12
Oats		$/pound		$0.70
Pasture		$/pound		$2.60
Corn		$/bag		$245.00
Wire		$/pound		$1.32
Canal Water		$/acre foot		$45.00
Energy:				
Diesel fuel		$/gallon		$3.46
Gasoline		$/gallon		$2.98
Natural Gas		$/MCF		$4.05
LP Gas		$/gallon		$2.45
Electricity		cents/KwHr		5.52
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		9.25%
Land Interest Rate		percent		8.15%
Equipment Interest Rate		percent		7.15%
Real Interest Rate		percent		1.82%
Land Taxes	$253.00	/acre (full value)		$2.44
Personal Property Tax Rate	- NR	$/$1,000	(Assessed	$28.92
	- R		Value)	$24.67
Supervision Factors				
Field Crop-Irrigation		$/labor hour		$1.00
Field Crop-Equipment & General		$/labor hour		$0.50
Management Rate		percent		7.00%

TABLE 3. Overhead cost information for San Juan County, Actual 2024

Item					
Electricity (Domestic & Shop)			$45.00	per month	$540
Telephone			$30.00	per month	$360
Accounting & Legal					$570
Misc. Supplies & Hand Tools					$960
Pickup and Auto					
miles	2,500	@	$0.670	per mile	$1,675
Insurance					
- general liability (non-employee)					$400
- fire/theft					$250
Property Taxes					
- non-planted land					$0
- other than land & machinery					$500
Building repairs and maintenance					$595
Dues, fees, publications					$294
Farmstead Equipment					$192
				Total	$6,336
			Total per planted acre		$264.01

TABLE 4. Equipment summary for an 24 acre flood-irrigated farm, San Juan County, Actual 2024

EQUIPMENT ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS FUEL, OIL, LUBRICANT	VARIABLE COSTS REPAIR	VARIABLE COSTS FUEL, OIL PER HR	VARIABLE COSTS REPAIR PER HR	FIXED COSTS DEPRECIATION	FIXED COSTS TAXES	FIXED COSTS TOTAL PER HR
TRACTOR 50 HP	23	1	$7,000	$615	$11	$27.24	$0.51	$140	$34	$7.70
TRACTOR 90 HP	28	1	$17,335	$1,374	$13	$49.04	$0.45	$578	$84	$23.60
SWATHER 14 FT	3	1	$3,900		$2		$0.55	$195	$19	$74.24
DISC 12 FT	3	1	$1,000		$7		$2.79	$67	$5	$28.37
PLOW 3-14 IN	12	1	$1,500		$40		$3.35	$100	$7	$8.89
SWEET CORN PICKER	14	1	$5,350		$11		$0.75	$268	$26	$20.37
DITCHER	4	1	$1,250		$0		$0.05	$83	$6	$24.82
HARROW 12 FT	4	1	$300		$0		$0.01	$20	$1	$4.96
PLANTER 4 ROW	5	1	$1,000		$9		$1.63	$100	$5	$19.41
CULTIVATOR 4 ROW	8	1	$2,000		$15		$2.00	$133	$10	$18.91
FERT SPREADER DEALER FURNISHED	1	1								
PICKUP 3/4 TON	54	1	$23,000	$2,796	$248	$51.79	$4.60	$2,300	$111	$44.65
			$63,635	$4,785	$356			$3,984	$307	

Note: we used total value rather than new value for depreciation, taxes, and repair Note: we used total value rather than new value for depreciation, taxes, and repair

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	16880.00	7000.00	50.00	1.00	800.00	9.53	0.10	338.40	15.00	250.25
TRACTOR 90 HP	14980.00	17334.50	30.00	1.00	800.00	17.15	0.10	644.46	23.00	619.71
SWATHER 14 FT	27500.00	3900.00	20.00	2.00	800.00			392.28	14.00	139.43
DISC 12 FT	4500.00	1000.00	15.00	3.00	300.00			40.32	16.00	35.75
PLOW 3-14 IN	6700.00	1500.00	15.00	3.00	300.00			192.96	16.00	53.63
SWEET CORN PICKER	25000.00	5350.00	20.00	2.00	100.00			201.60	14.00	191.26
DITCHER	2500.00	1250.00	15.00	4.00	300.00			54.00	15.00	44.69
HARROW 12 FT	600.00	300.00	15.00	4.00	300.00			69.12	16.00	10.73
PLANTER 4 ROW	6800.00	1000.00	10.00	8.00	100.00			70.20	13.00	35.75
CULTIVATOR 4 ROW	4000.00	2000.00	15.00	3.00	300.00			120.96	16.00	71.50
FERT SPREADER DEALER FURNISHED					100.00				17.00	
PICKUP 3/4 TON	46000	23000	10	2	800	17.32	0.15	702.00	13	822.25

Note: small scale farme does not use full capacity of machinery so I reduced the used value a quarter of new value

USAGE LIST

	ALFALFA HAY	SWEET CORN	PER ACRE TOTALS
	0.10	1.22	1.32
	0.05	1.54	1.59
	0.48	0.00	0.48
	0.00	0.14	0.14
	0.00	0.67	0.67
	0.00	0.80	0.80
	0.60	0.00	0.60
	0.00	0.24	0.24
	0.00	0.30	0.30
	0.00	0.42	0.42
	0.05	0.05	0.10
	0.00	3.00	3.00

INTEREST PRORATION

ALFALFA HAY	SWEET CRON
----------dollars per acre----------	
1.11	13.53
1.11	34.06
23.24	0.00
0.00	1.99
0.00	2.98
0.00	10.63
7.45	0.00
0.00	0.60
0.00	1.99
0.00	3.97
0.00	0.00
0.00	45.68
32.90	69.74

ALFALFA HAY ACRES: 6 CANEL WATER:

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	ACCOMPLISHMENT TOTAL	CUSTOM
FERTILIZE	90 HP	1.00	0.05	0.05	
DITCHER (2X)	50 HP	2.00	0.05	0.10	
IRRIGATE (12X)		12.00	0.50	6.00	
SWATHER(3X)	14FT	3	0.16	0.48	
BAILING					133 $10/bale, 80 bales/6 acres

SWEET CORN ACRES: 18 CANEL WATER:

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	ACCOMPLISHMENT TOTAL	CUSTOM
DISC	90 HP	1.00	0.14	0.14	
PLOW	90 HP	1.00	0.67	0.67	
FERTILIZE	90 HP	1.00	0.05	0.05	
DISC	90 HP	1.00	0.14	0.14	
HARROW	90HP	1.00	0.24	0.24	
PRE-IRRIGATE		1	0.75	0.75	
PLANTER	90 HP	1.00	0.30	0.30	
CULTIVATOR	50 HP	1.00	0.42	0.42	
IRRIGATE (4X)		4.00	0.50	2.00	
MACHINE PICK	50 HP	1	0.8	0.80	
HAUL	3/4 ton	3	1	3.00	

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
	*	*	*	*	**	**	**	**	**
0.00	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
50.00	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
100.00	0.000060	0.000020	0.000500	0.000020	0.000140	0.000220	0.000100	0.000380	0.000300
200.00	0.000030	0.000030	0.000430	0.000040	0.000180	0.000260	0.000110	0.000510	0.000260
300.00	0.000030	0.000050	0.000390	0.000060	0.000230	0.000310	0.000140	0.000630	0.000400
400.00	0.000030	0.000060	0.000370	0.000090	0.000260	0.000340	0.000150	0.000710	0.000450
500.00	0.000030	0.000070	0.000360	0.000100	0.000280	0.000370	0.000170	0.000800	0.000630
600.00	0.000030	0.000090	0.000340	0.000120	0.000310	0.000390	0.000190	0.000860	0.000530
700.00	0.000030	0.000100	0.000340	0.000130	0.000330	0.000410	0.000200	0.000910	0.000560
800.00	0.000030	0.000110	0.000320	0.000150	0.000350	0.000430	0.000210	0.000980	0.000590
900.00	0.000030	0.000120	0.000320	0.000160	0.000370	0.000450	0.000230	0.001020	0.000600
1000.00	0.000090	0.000130	0.000310	0.000180	0.000380	0.000460	0.000230	0.001070	0.000630
1200.00	0.000045	0.000145	0.000305	0.000205	0.000405	0.000480	0.000245	0.001135	0.000710
1400.00	0.000045	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1500.00	0.000150	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1600.00	0.000150	0.000190	0.000285	0.000255	0.000465	0.000525	0.000135	0.001235	0.000805
1800.00	0.000075	0.000170	0.000285	0.000285	0.000485	0.000550	0.000295		
2000.00	0.000110	0.000265	0.000280	0.000305	0.000505	0.000565	0.000310		
2500.00	0.000056								
3000.00	0.000070								
3500.00	0.000082								
4000.00	0.000096								
4500.00	0.000108								
5000.00	0.000122								
5500.00	0.000136								
6000.00	0.000148								
6500.00	0.000162								
7000.00	0.000176								
7500.00	0.000188								
8000.00	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	rotary hoe, disks, moldboard plows, chisels, field cultivators row cultivators, laser plane
4	harrows, wagons, floats, roto buck, drag, roller, water furrow, bed shaper
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 hay, flood-irrigated, budgeted per acre costs and returns for an 24 acre farm, San Juan County, Actual 2024
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
ALFALFA HAY	$343.00	8.30	TONS (70 lbs bale- 80 bales per cutting)	$2,846.90
GRAZING	$10.00	2.00	AUM	$20.00
TOTAL				$2,866.90

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL	
18-52-0	$0.30	200	LBS	$60.00		$60.00	
WIRE	$1.32	0	LBS	$0.00		$0.00	(including customer baleing)
CANAL WATER		60	AC. IN.		$120.00	$120.00	
CANAL WATER (MAINTENANCE)		1	ACRE		$8.00	$8.00	
SUBTOTAL				$60.00	$128.00	$188.00	

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
FERTILIZE	90 HP	0.05	HR		$0.90	$2.45	$0.02	$1.18	$4.55	
DITCHER (2X)	50 HP	0.10	HR		$1.79	$2.72	$0.06	$3.25	$7.82	
IRRIGATE (12X)		6.00	HR		$100.62				$100.62	
SUBTOTAL		6.15	HR		$103.31	$5.18	$0.08	$4.43	$113.00	
HARVEST OPERATIONS										
SWATHER (3X)	90 HP	0.48	HR		$8.60	$23.54	$0.48	$46.96	$79.58	
BALER(CUSTOM)				$2,400.00					$2,400.00	$10/bale
BALE WAGON (CUSTOME)										
SUBTOTAL		0.48	HR	$2,400.00	$8.60	$23.54	$0.48	$46.96	$2,479.58	
OVERHEAD EXPENSES										
DOWNTIME		0.13	HR		$2.37				$2.37	
EMPLOYEE BENEFITS					$20.14				$20.14	
INSURANCE				$2.24					$2.24	
LAND TAXES								$2.44	$2.44	
SUPERVISION AND MANAGEMENT					$206.95				$206.95	
OTHER EXPENSES				$263.49					$263.49	
SUBTOTAL		0.13	HR	$265.73	$229.47			$2.44	$497.63	
TOTAL OPERATING EXPENSES		6.76	HR	$2,725.73	$341.38	$28.72	$0.56	$181.83	$3,278.21	
NET OPERATING PROFIT									($411.31)	
INTEREST ON OPERATING CAPITAL		($33.32	@	9.25%	)				$3.08	
INTEREST ON EQUIPMENT INVESTMENT									$32.90	
RETURN TO LAND AND RISK									($447.29)	

BUDGET SUMMARY

GROSS RETURN		$2,866.90	
VARIABLE OPERATING EXPENSES	$2,755.00		
RETURN OVER VARIABLE EXPENSES		$111.90	(GROSS MARGIN)
FIXED EXPENSES	$181.83		
NET FARM INCOME		($69.93)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$341.38		
NET OPERATING PROFIT		($411.31)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$35.98		
RETURN TO LAND AND RISK		($447.29)	

TABLE 6. Sweet Corn, flood-irrigated, budgeted per acre costs and returns for an 24 acre farm, San Juan County, Actual 2024
Planting dates: May 15 - every two weeks (6 plantings)
Harvesting dates: August 7- first harvesting day with 10 days until Oct 6

ITEM	PRICE	YIELD	TOTAL	
GROSS RETURNS				
SWEET CORN	$6.00	556.00 DOZENS	$3,336.00	Farmer's Markets and other places too
TOTAL			$3,336.00	

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$3.06	30 LBS	$91.88		$91.88
UREA	$0.25	160 LBS	$40.00		$40.00
CANAL WATER		30 AC. IN.		$120.00	$120.00
CANAL WATER (MAINTENANCE)		1 ACRE		$8.00	$8.00
SUBTOTAL			$131.88	$128.00	$259.88

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	90 HP	0.14 HR		$2.51	$6.87	$0.53	$4.55	$14.46
DISC (2X)	90 HP	0.28 HR		$5.02	$13.73	$0.91	$14.55	$34.21
HARROW	90 HP	0.24 HR		$4.30	$11.77	$0.11	$6.86	$23.04
FERTILIZE	90 HP	0.05 HR		$0.90	$2.45	$0.02	$1.18	$4.55
PRE-IRRIGATE		0.75 HR		$12.58				$12.58
PLANTER	90 HP	0.30 HR		$5.38	$14.71	$0.62	$12.90	$33.62
CULTIVATOR	50 HP	0.42 HR		$7.53	$11.44	$1.05	$11.18	$31.20
IRRIGATE (4X)		2.00 HR		$33.54				$33.54
SUBTOTAL		4.18 HR		$71.74	$60.97	$3.25	$51.22	$187.18
HARVEST OPERATIONS								
MACHINE PICK	50 HP	0.80 HR		$14.34	$39.23	$0.96	$35.18	$89.70
HAUL	3/4ton	3.00 HR		$53.76	$155.36	$13.80	$133.94	$356.86
SUBTOTAL		3.80 HR		$68.10	$194.59	$14.76	$169.11	$446.56
OVERHEAD EXPENSES								
DOWNTIME		1.31 HR		$23.43				$23.43
EMPLOYEE BENEFITS				$25.17				$25.17
INSURANCE			$2.80					$2.80
LAND TAXES							$2.44	$2.44
SUPERVISION AND MANAGEMENT				$238.14				$238.14
OTHER EXPENSES			$263.49					$263.49
SUBTOTAL		1.31 HR	$266.28	$286.74			$2.44	$555.46
TOTAL OPERATING EXPENSES		9.29 HR	$398.16	$426.58	$255.57	$18.01	$350.77	$1,449.08
NET OPERATING PROFIT								$1,886.92
INTEREST ON OPERATING CAPITAL	($99.44 @ 9.25%)							$9.20
INTEREST ON EQUIPMENT INVESTMENT								$69.74
RETURN TO LAND AND RISK								$1,807.98

BUDGET SUMMARY

GROSS RETURN		$3,336.00	
VARIABLE OPERATING EXPENSES	$671.73		
RETURN OVER VARIABLE EXPENSES		$2,664.27	(GROSS MARGIN)
FIXED EXPENSES	$350.77		
NET FARM INCOME		$2,313.50	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$426.58		
NET OPERATING PROFIT		$1,886.92	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$78.94		
RETURN TO LAND AND RISK		$1,807.98	

TABLE 7. Summary of per acre costs and returns for an 80 acre farm, San Juan County, Actual 2024

	ALFALFA HAY	SWEET CORN
	TONS	TONS
PRIMARY YIELD	8.30	556.00
PRIMARY PRICE	$343.00	$6.00
GOVERNMENT PAYMENTS	$0.00	$0.00
SECOND INCOME	$20.00	$0.00
GROSS RETURN	$2,866.90	$3,336.00
CASH OPERATING EXPENSES		
SEED		$91.88
FERTILIZER	$60.00	$40.00
CROP INSURANCE		
OTHER PURCHASED INPUTS	$0.00	$0.00
CANAL WATER	$128.00	$128.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	$28.72	$255.57
FUEL-IRRIGATION		
REPAIRS	$0.56	$18.01
CUSTOM CHARGES	$2,400.00	
LAND TAXES	$2.44	$2.44
OTHER EXPENSES	$265.73	$266.28
TOTAL CASH EXPENSES	$2,885.44	$802.17
RETURN OVER CASH EXPENSES	($18.54)	$2,533.83
FIXED EXPENSES	$51.40	$220.33
TOTAL EXPENSES	$2,936.83	$1,022.50
NET FARM INCOME	($69.93)	$2,313.50
LABOR AND MANAGEMENT COSTS	$341.38	$426.58
NET OPERATING PROFIT	($411.31)	$1,886.92
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL	$3.08	$9.20
INTEREST ON EQUIPMENT INVESTMENT	$32.90	$69.74
TOTAL CAPITAL COSTS	$35.98	$78.94
RETURN TO LAND AND RISK	($447.29)	$1,807.98

TABLE 8. Whole farm summary, San Juan County, Actual 2024

GROSS RETURNS				
ALFALFA HAY	6.00	ACRES		
CROP			$17,201	
Sweet Corn	18.00	ACRES		
CROP			$60,048	
GROSS RETURN				$77,249
CASH OPERATING EXPENSES				
SEED			$1,654	
FERTILIZER			$1,080	
CHEMICALS			$0	
CROP INSURANCE			$0	
OTHER PURCHASED INPUTS			$0	
CANAL WATER			$3,072	
FUEL, OIL & LUBRICANTS-EQUIPMENT			$4,772	
FUEL-IRRIGATION			$0	
REPAIRS			$328	
CUSTOM CHARGES			$14,400	
LAND TAXES			$59	
OTHER EXPENSES			$6,387	
TOTAL CASH EXPENSES			$31,752	
RETURN OVER CASH EXPENSES				$45,498
FIXED EXPENSES			$4,274	
TOTAL EXPENSES			$36,026	
NET FARM INCOME				$41,223
LABOR AND MANAGEMENT COSTS			$9,727	
NET OPERATING PROFIT				$31,497
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL			$184	
INTEREST ON EQUIPMENT INVESTMENT			$1,453	
TOTAL CAPITAL COSTS			$1,637	
RETURN TO LAND AND RISK				$29,860

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
$1,000 /ACRE	$29,424	35.94%
$2,500 /ACRE	$28,770	25.48%
$4,000 /ACRE	$28,117	19.73%
$5,500 /ACRE	$27,463	16.10%
$7,000 /ACRE	$26,809	13.60%
$8,500 /ACRE	$26,155	11.77%

* 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)