

TABLE 1. Acreage Summary, San Juan County,  
Projected 2017

BUDGET AREA..... SAN JUAN COUNTY			
FARM SIZE..... 80 ACRES			
IRRIGATION TYPE..... FLOOD			
NUMBER OF CROPS... 3			
WATER USE			
ACREAGE SUMMARY:	LAND USE (ACRES)	AC. IN. PER AC.	TOTAL AC. IN.
ALFALFA ESTABLISHMENT	6.00	48	288
ALFALFA	34.00	60	2,040
PASTURE ESTABLISHMENT	1.00 *	21	21
PASTURE	20.00	62	1,240
CORN SILAGE	20.00	48	960
<b>TOTAL</b>	<b>80</b>		<b>4,549</b>
<b>ACRE FEET PER ACRE OF WATER RIGHTS</b>			<b>4.74</b>

\* DOUBLE-CROPPED

TABLE 2. Basic cost information for San Juan County,  
Projected 2017

Item		
<b>Labor Wage Rate:</b>		
Equipment operators	\$/hour	\$7.80
General & Irrigators	\$/hour	\$7.50
<b>Purchased Inputs:</b>		
<b>Fertilizer:</b>		
Nitrogen (N)	\$/pound	\$0.22
Phosphate (P205)	\$/pound	\$0.27
Anhydrous Ammonia (NH3)	\$/ton	\$717.00
<b>Seed:</b>		
Alfalfa	\$/pound	\$3.05
Oats	\$/pound	\$0.34
Pasture	\$/pound	\$2.60
Corn	\$/bag	\$300.00
Wire	\$/pound	\$1.32
Canal Water	\$/acre foot	\$30.50
<b>Energy:</b>		
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	\$20.00
Employee Benefits	percent/wages	18.00%
Labor Downtime	percent	25.00%
<b>Financial Rates:</b>		
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	\$253.00 /acre (full value)	\$2.44
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value) \$28.89 \$24.64
<b>Supervision Factors</b>		
Field Crop-Irrigation	\$/labor hour	\$1.00
Field Crop-Equipment & General	\$/labor hour	\$0.50
<b>Management Rate</b>	percent	7.00%

TABLE 3. Overhead cost information for San Juan County,  
Projected 2017

Item		
Electricity (Domestic & Shop)	\$127.05	per month \$1,525
Telephone	\$84.70	per month \$1,016
Accounting & Legal		\$538
Misc. Supplies & Hand Tools		\$908
Pickup and Auto		
miles	12,463	@ \$0.500 per mile \$6,232
<b>Insurance</b>		
- general liability (non-employee)		\$1,125
- fire/theft		\$678
<b>Property Taxes</b>		
- non-planted land		\$0
- other than land & machinery		\$6,010
Building repairs and maintenance		\$563
Dues, fees, publications		\$278
Farmstead Equipment		\$182
<b>Total</b>		<b>\$19,054</b>
<b>Total per planted acre</b>		<b>\$257.48</b>

TABLE 4. Equipment summary for an 80 acre food-irrigated farm, San Juan County, Pinedale, UT.

EQUIPMENT	ANNUAL				UNIMPAIRED COSTS				FIXED COSTS		
	ITEM SIZE	HOURS OF USE	NUMBER	TOTAL USE	FUEL, OIL, LUBRICANT	REPAIR PER YEAR	FUEL, OIL, REPAIR PER YEAR	DEPRECIATION	TAXES	TOTAL PER YEAR	
TRACTOR	40 HP	36	1	\$7,000	\$263	\$42	\$716	\$158	\$380	\$937	\$1138
TRACTOR	30 HP	102	1	\$17,335	\$1,299	\$56	\$1,279	\$104	\$325	\$167	\$531
TRACTOR	14 FT	17	1	\$1,900	\$75	\$10	\$75	\$10	\$100	\$140	\$250
SWATHER	14 FT	23	1	\$1,600	\$53	\$7	\$53	\$7	\$100	\$140	\$250
BALER, PFD	2 WIRE	92	1	\$1,600	\$53	\$7	\$53	\$7	\$100	\$140	\$250
BALER, PFD	2 WIRE	92	1	\$1,600	\$53	\$7	\$53	\$7	\$100	\$140	\$250
DISC	12 FT	9	1	\$2,250	\$26	\$3	\$29	\$3	\$100	\$120	\$220
DISC	3/4 N	18	1	\$2,250	\$26	\$3	\$29	\$3	\$100	\$120	\$220
SLAGE CHOPPER, PFD	14	1	\$3,300	\$5	\$0	\$5	\$0	\$0	\$80	\$85	\$165
UNLOADING WAGON	14	1	\$2,000	\$2	\$0	\$2	\$0	\$0	\$100	\$102	\$202
DITCHER	12 FT	5	1	\$1,200	\$0	\$0	\$0	\$0	\$100	\$100	\$200
DITCHER	12 FT	5	1	\$1,200	\$0	\$0	\$0	\$0	\$100	\$100	\$200
HARROW	12 FT	5	1	\$2,200	\$0	\$0	\$0	\$0	\$400	\$400	\$800
DRILL	4 ROW	5	1	\$2,000	\$0	\$0	\$0	\$0	\$200	\$200	\$400
PLANTER	4 ROW	5	1	\$2,000	\$0	\$0	\$0	\$0	\$200	\$200	\$400
CULTIVATOR	4 ROW	5	1	\$2,000	\$0	\$0	\$0	\$0	\$200	\$200	\$400
FERT SPREADER DEALER FURNISHED	4	1	\$2,000	\$40	\$2	\$42	\$2	\$0	\$10	\$12	\$24
					\$50,205	\$1,738	\$349		\$7,164	\$584	

EQUIPMENT LIST

ITEM	NEW VALUE	USED VALUE	YEARS	EQUIP. COST	MAX. LOAD	FUEL, OIL, LUBE	ANNUAL ACCUM. COST	INTEREST	
	(\$)	(\$)		(\$)	(\$)	(\$)	(\$)	(\$)	
TRACTOR	40 HP	17375.00	7000.00	50.00	1.00	800.00	3.40	0.10	578.55
TRACTOR	30 HP	17335.00	17335.00	20.00	1.00	800.00	0.44	0.10	228.80
SWATHER	14 FT	2500.00	3800.00	20.00	2.00	800.00	3.12	0.20	241.82
BALER, PFD	2 WIRE	7700.00	1500.00	20.00	2.00	300.00	1.00	0.10	403.24
BALER, PFD	2 WIRE	15000.00	1500.00	20.00	5.00	800.00	12.60	0.10	482.50
DISC	12 FT	4000.00	2200.00	15.00	3.00	300.00	1.46	0.10	123.75
DISC	3/4 N	4000.00	2200.00	15.00	3.00	300.00	1.46	0.10	123.75
SLAGE CHOPPER, PFD	14	6700.00	3300.00	20.00	3.00	300.00	2.88	0.10	184.25
UNLOADING WAGON	14	5400.00	1200.00	20.00	2.00	300.00	1.08	0.10	268.00
DITCHER	12 FT	7700.00	3800.00	20.00	5.00	300.00	21.00	0.10	211.75
DITCHER	12 FT	2500.00	1200.00	20.00	4.00	300.00	91.00	0.10	68.75
HARROW	12 FT	600.00	300.00	15.00	4.00	300.00	82.08	0.10	15.00
DRILL	4 ROW	600.00	300.00	15.00	4.00	300.00	82.08	0.10	15.00
PLANTER	4 ROW	600.00	300.00	15.00	4.00	300.00	82.08	0.10	15.00
CULTIVATOR	4 ROW	600.00	300.00	15.00	4.00	300.00	82.08	0.10	15.00
FERT SPREADER DEALER FURNISHED	4	4000.00	2000.00	15.00	3.00	300.00	292.32	0.10	110.00
							100.00		17.00

USAGE LIST

ALFALFA EST.	ANNUAL PASTURE	CORN FOR SILAGE
ACRES	ACRES	ACRES
0.31	0.10	0.31
1.87	1.28	1.46
0.21	0.63	0.00
0.20	0.48	0.00
0.34	0.00	0.34
0.67	0.00	0.67
0.00	0.00	0.00
0.00	0.00	0.00
0.10	0.10	0.10
0.19	0.00	0.19
0.21	0.00	0.21
0.00	0.00	0.00
0.06	0.06	0.06

INTEREST PROMOTION

ALFALFA EST.	ANNUAL PASTURE	CORN FOR SILAGE
ACRES	ACRES	ACRES
7.96	5.40	0.21
7.38	23.14	0.00
1.96	3.88	0.00
4.67	12.22	0.00
4.58	0.00	0.00
6.82	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.10	0.10	0.10
0.19	0.00	0.19
0.21	0.00	0.21
0.00	0.00	0.00
0.06	0.06	0.06

ALFALFA ESTABLISHMENT

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
PLOW	90 HP	1.00	0.67	0.67	
DISC (2)	90 HP	2.00	0.17	0.34	
HARROW	90 HP	1.00	0.19	0.19	
FERTILIZER	90 HP	1.00	0.05	0.05	
CORNGATE	40 HP	1.00	0.21	0.21	
DRILL	90 HP	1.00	0.21	0.21	
DITCHER (1)	90 HP	1.00	0.08	0.08	
IRIGATE (2)	40 HP	6.00	0.50	3.00	
SWATHER (3)	14 FT	1.00	0.16	0.16	
BALER (3)	90 HP	3.00	0.21	0.63	
BALE WAGON (3)	90 HP	1.00	0.20	0.20	

ALFALFA HYF

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZER	90 HP	1.00	0.05	0.05	
DITCHER (2)	90 HP	2.00	0.08	0.16	
IRIGATE (1)	40 HP	11.00	0.50	5.50	
SWATHER (3)	14 FT	3.00	0.16	0.48	
BALER (3)	90 HP	3.00	0.21	0.63	
BALE WAGON (3)	90 HP	3.00	0.20	0.60	

PERMANENT PASTURE EST.

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
PLOW	90 HP	1.00	0.67	0.67	
DISC (2)	90 HP	2.00	0.17	0.34	
HARROW	90 HP	1.00	0.19	0.19	
FERTILIZER	90 HP	1.00	0.05	0.05	
CORNGATE	40 HP	1.00	0.21	0.21	
DRILL	90 HP	1.00	0.21	0.21	
DITCHER (1)	90 HP	1.00	0.08	0.08	
IRIGATE (2)	40 HP	6.00	0.50	3.00	

PERMANENT PASTURE

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZER	90 HP	1.00	0.05	0.05	
CORNGATE	40 HP	1.00	0.21	0.21	
DITCHER (1)	90 HP	1.00	0.08	0.08	
IRIGATE (1)	40 HP	11.00	0.50	5.50	
PLOW	90 HP	1.00	0.67	0.67	
DISC (2)	90 HP	2.00	0.17	0.34	
HARROW	90 HP	1.00	0.19	0.19	
FERTILIZER	90 HP	1.00	0.05	0.05	
CORNGATE	40 HP	1.00	0.21	0.21	
DRILL	90 HP	1.00	0.21	0.21	
DITCHER (1)	90 HP	1.00	0.08	0.08	
IRIGATE (2)	40 HP	6.00	0.50	3.00	

CORN FOR SILAGE

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
PLOW	90 HP	1.00	0.67	0.67	
DISC (2)	90 HP	2.00	0.17	0.34	
HARROW	90 HP	1.00	0.19	0.19	
FERTILIZER	90 HP	1.00	0.05	0.05	
CORNGATE	40 HP	1.00	0.21	0.21	
PLANTER	90 HP	1.00	0.75	0.75	
PLANTER	40 HP	1.00	0.26	0.26	
CULTIVATOR (2)	40 HP	2.00	0.21	0.42	
IRIGATE (2)	40 HP	6.00	0.50	3.00	
SLAGE CHOPPER, PFD	90 HP	1.00	0.71	0.71	
LOAD & HAIL	40 HP	1.00	0.71	0.71	

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Years of Use	1	2	3	4	5	6	7	8	9
0	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
10	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
100	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
300	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
500	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
700	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
900	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1200	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1400	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1600	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1800	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
3000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
4000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
5000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
6000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
7000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
8000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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

Based on "Agricultural Machinery Cost" in Agricultural Engineers Yearbook, 1952.

TABLE 5. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, Projected 2017  
 Planting dates: April 15 - June 1  
 Harvest dates: June 1 - July 31

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
OAT HAY	#####	2.25 TONS (STACKED)						\$337.50
GRAZING	\$10.00	1.00 AUM						\$10.00
<b>TOTAL</b>							<b>\$347.50</b>	
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
ALFALFA SEED	\$3.05	20 LBS	\$61.00					\$61.00
OAT SEED	\$0.34	45 LBS	\$15.30					\$15.30
PHOSPHATE (P2O5)	\$0.27	45 LBS	\$12.15					\$12.15
WIRE	\$1.32	19 LBS	\$25.45					\$25.45
CANAL WATER		48 AC. IN.					\$122.00	\$122.00
CANAL WATER (MAINTENANCE)		1 ACRE					\$8.00	\$8.00
<b>SUBTOTAL</b>			<b>\$113.90</b>				<b>\$130.00</b>	<b>\$243.90</b>
<b>PREHARVEST OPERATIONS</b>								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLow	96 HP	0.67 HR		\$5.23	\$8.57	\$3.42	\$21.70	\$38.91
DISC (2X)	96 HP	0.34 HR		\$2.65	\$4.35	\$1.27	\$13.92	\$22.19
HARROW	96 HP	0.19 HR		\$1.48	\$2.43	\$0.18	\$2.71	\$6.80
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.64	\$0.05	\$0.30	\$1.37
CORRUGATE	40 HP	0.21 HR		\$1.64	\$1.65	\$0.75	\$5.72	\$9.75
DRILL	96 HP	0.21 HR		\$1.64	\$2.69	\$0.42	\$67.12	\$71.87
DITCHER (2X)	40 HP	0.10 HR		\$0.78	\$0.79	\$0.11	\$4.09	\$5.76
IRRIGATE (6X)		3.00 HR		\$22.50				\$22.50
<b>SUBTOTAL</b>		<b>4.77 HR</b>		<b>\$36.31</b>	<b>\$21.11</b>	<b>\$6.19</b>	<b>\$115.55</b>	<b>\$179.16</b>
<b>HARVEST OPERATIONS</b>								
SWATHER	14 FT	0.16 HR		\$1.25	\$1.26	\$0.09	\$14.72	\$17.32
BALER	96 HP	0.21 HR		\$1.64	\$2.69	\$0.23	\$5.15	\$9.70
BALE WAGON	96 HP	0.20 HR		\$1.56	\$2.56	\$0.44	\$9.30	\$13.86
<b>SUBTOTAL</b>		<b>0.57 HR</b>		<b>\$4.45</b>	<b>\$6.50</b>	<b>\$0.77</b>	<b>\$29.17</b>	<b>\$40.89</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		2.16 HR		\$16.87				\$16.87
EMPLOYEE BENEFITS				\$7.34				\$7.34
INSURANCE			\$0.82					\$0.82
LAND TAXES							\$2.44	\$2.44
SUPERVISION AND MANAGEMENT				\$33.78				\$33.78
<b>SUBTOTAL</b>		<b>2.16 HR</b>	<b>\$0.82</b>	<b>\$57.99</b>			<b>\$2.44</b>	<b>\$61.24</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>7.50 HR</b>	<b>\$114.72</b>	<b>\$98.74</b>	<b>\$27.61</b>	<b>\$6.96</b>	<b>\$277.16</b>	<b>\$525.18</b>
<b>NET OPERATING PROFIT</b>							<b>(\$177.68)</b>	
INTEREST ON OPERATING CAPITAL		(	\$64.38	@	5.50%	)	\$3.54	
INTEREST ON EQUIPMENT INVESTMENT							\$57.05	
<b>RETURN TO LAND AND RISK</b>							<b>(\$238.28)</b>	

TABLE 6. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, Projected 2017  
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
ALFALFA HAY	\$175.00	5.00	TONS (STACKED)					\$875.00
GRAZING	\$10.00	2.00	AUM					\$20.00
<b>TOTAL</b>								<b>\$895.00</b>
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
PHOSPHATE (P2O5)	\$0.27	45 LBS	\$12.15					\$12.15
INSECTICIDE (AERIAL)	\$17.25	1 ACRE	\$17.25					\$17.25
WIRE	\$1.32	43 LBS	\$56.56					\$56.56
ESTABLISHMENT: Principal		6 YEARS					\$39.71	\$39.71
: Interest							\$17.27	\$17.27
LIVESTOCK FAC & EQUIP							\$5.00	\$5.00
CANAL WATER		60 AC. IN.					\$152.50	\$152.50
CANAL WATER (MAINTENANCE)		1 ACRE					\$8.00	\$8.00
<b>SUBTOTAL</b>			<b>\$85.97</b>				<b>\$222.49</b>	<b>\$308.45</b>
<b>PREHARVEST OPERATIONS</b>								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.64	\$0.05	\$0.30	\$1.37
DITCHER (2X)	40 HP	0.10 HR		\$0.78	\$0.79	\$0.11	\$4.09	\$5.76
IRRIGATE (10X)		5.00 HR		\$37.50				\$37.50
<b>SUBTOTAL</b>		<b>5.15 HR</b>		<b>\$38.67</b>	<b>\$1.42</b>	<b>\$0.16</b>	<b>\$4.38</b>	<b>\$44.64</b>
<b>HARVEST OPERATIONS</b>								
SWATHER (3X)	14 FT	0.48 HR		\$3.74	\$3.77	\$0.28	\$44.16	\$51.95
BALER (3X)	96 HP	0.63 HR		\$4.91	\$8.06	\$0.69	\$15.45	\$29.11
BALE WAGON (3X)	96 HP	0.60 HR		\$4.68	\$7.67	\$1.33	\$27.91	\$41.59
<b>SUBTOTAL</b>		<b>1.71 HR</b>		<b>\$13.34</b>	<b>\$19.50</b>	<b>\$2.30</b>	<b>\$87.51</b>	<b>\$122.66</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.44 HR		\$3.43				\$3.43
EMPLOYEE BENEFITS				\$9.36				\$9.36
INSURANCE			\$1.04					\$1.04
LAND TAXES							\$2.44	\$2.44
SUPERVISION AND MANAGEMENT				\$68.53				\$68.53
OTHER EXPENSES			\$257.48					\$257.48
<b>SUBTOTAL</b>		<b>0.44 HR</b>	<b>\$258.52</b>	<b>\$81.32</b>			<b>\$2.44</b>	<b>\$342.28</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>7.30 HR</b>	<b>\$344.49</b>	<b>\$133.33</b>	<b>\$20.93</b>	<b>\$2.46</b>	<b>\$316.81</b>	<b>\$818.03</b>
<b>NET OPERATING PROFIT</b>								<b>\$76.97</b>
INTEREST ON OPERATING CAPITAL		(	\$45.20	@	5.50%	)		\$2.49
INTEREST ON EQUIPMENT INVESTMENT								\$48.12
<b>RETURN TO LAND AND RISK</b>								<b>\$26.37</b>
<b>BUDGET SUMMARY</b>								
GROSS RETURN		\$895.00						
VARIABLE OPERATING EXPENSES	\$367.88							
RETURN OVER VARIABLE EXPENSES	\$527.12	(GROSS MARGIN)						
FIXED EXPENSES	\$316.81							
NET FARM INCOME	\$210.30	(RETURN TO CAPITAL, LABOR, LAND & RISK)						
LABOR AND MANAGEMENT COST	\$133.33							
NET OPERATING PROFIT	\$76.97	(RETURN TO CAPITAL, LAND & RISK)						
CAPITAL COSTS	\$50.60							
<b>RETURN TO LAND AND RISK</b>		<b>\$26.37</b>						

TABLE 7. Permanent pasture establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County,  
 Projected 2017  
 Planting dates: August 15 - September 15

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$2.60	14 LBS	\$36.40					\$36.40
NITROGEN (N)	\$0.22	20 LBS	\$4.40					\$4.40
PHOSPHATE (P205)	\$0.27	50 LBS	\$13.50					\$13.50
CANAL WATER		21 AC. IN.					\$53.38	\$53.38
CANAL WATER (MAINTENANCE)							\$8.00	\$8.00
SUBTOTAL			\$54.30				\$53.38	\$107.68

  

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	96 HP	0.67 HR		\$5.23	\$8.57	\$3.42	\$21.70	\$38.91
DISC (2X)	96 HP	0.34 HR		\$2.65	\$4.35	\$1.27	\$13.92	\$22.19
HARROW	96 HP	0.19 HR		\$1.48	\$2.43	\$0.18	\$2.71	\$6.80
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.64	\$0.05	\$0.30	\$1.37
CORRUGATE	40 HP	0.21 HR		\$1.64	\$1.65	\$0.75	\$5.72	\$9.75
DRILL	96 HP	0.21 HR		\$1.64	\$2.69	\$0.42	\$67.12	\$71.87
DITCHER (2X)	40 HP	0.10 HR		\$0.78	\$0.79	\$0.11	\$4.09	\$5.76
IRRIGATE (3X)		1.50 HR		\$11.25				\$11.25
SUBTOTAL		3.27 HR		\$25.06	\$21.11	\$6.19	\$115.55	\$167.91

  

OVERHEAD EXPENSES								
DOWNTIME		0.44 HR		\$3.45				\$3.45
EMPLOYEE BENEFITS				\$4.51				\$4.51
INSURANCE			\$0.50					\$0.50
SUPERVISION AND MANAGEMENT				\$21.68				\$21.68
SUBTOTAL		0.44 HR	\$0.50	\$29.64				\$30.14

  

TOTAL OPERATING EXPENSES		3.71 HR	\$54.80	\$54.69	\$21.11	\$6.19	\$168.93	\$305.72
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TABLE 8. Permanent pasture, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County,  
 Projected 2017  
 Harvesting dates: Year Round

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
PASTURE	\$12.00	12.00 AUMS						\$144.00
<b>TOTAL</b>							<b>\$144.00</b>	
<b>PURCHASED INPUTS</b>								
	PRICE	QUANTITY	PURCHASED INPUTS			FIXED COST	TOTAL	
NITROGEN (N)	\$0.22	100 LBS	\$22.00				\$22.00	
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		15 YEARS				\$5.00	\$5.00	
: Interest						\$20.38	\$20.38	
CANAL WATER		62 AC. IN.				\$4.51	\$4.51	
CANAL WATER (MAINTENANCE)		1 ACRE				\$157.58	\$157.58	
						\$8.00	\$8.00	
<b>SUBTOTAL</b>			<b>\$22.00</b>			<b>\$195.47</b>	<b>\$217.47</b>	
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.64	\$0.05	\$0.30	\$1.37
CORRUGATE	40 HP	0.21 HR		\$1.64	\$1.65	\$0.75	\$5.72	\$9.75
DITCHER (2X)	40 HP	0.10 HR		\$0.78	\$0.79	\$0.11	\$4.09	\$5.76
IRRIGATE (11X)		5.50 HR		\$41.25				\$41.25
<b>SUBTOTAL</b>		<b>5.86 HR</b>		<b>\$44.06</b>	<b>\$3.07</b>	<b>\$0.91</b>	<b>\$10.10</b>	<b>\$58.14</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.09 HR		\$0.70				\$0.70
EMPLOYEE BENEFITS				\$7.93				\$7.93
INSURANCE			\$0.88					\$0.88
LAND TAXES							\$2.44	\$2.44
SUPERVISION AND MANAGEMENT				\$15.76				\$15.76
OTHER EXPENSES			\$257.48					\$257.48
<b>SUBTOTAL</b>		<b>0.09 HR</b>	<b>\$258.36</b>	<b>\$24.39</b>			<b>\$2.44</b>	<b>\$285.19</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>5.95 HR</b>	<b>\$280.36</b>	<b>\$68.45</b>	<b>\$3.07</b>	<b>\$0.91</b>	<b>\$208.01</b>	<b>\$560.80</b>
<b>NET OPERATING PROFIT</b>							<b>(\$416.80)</b>	
INTEREST ON OPERATING CAPITAL		( \$12.00 @	5.50%	)			\$0.66	
INTEREST ON EQUIPMENT INVESTMENT							\$6.58	
<b>RETURN TO LAND AND RISK</b>							<b>(\$424.04)</b>	
<b>BUDGET SUMMARY</b>								
GROSS RETURN			\$144.00					
VARIABLE OPERATING EXPENSES	\$284.35							
RETURN OVER VARIABLE EXPENSES		(\$140.35)	(GROSS MARGIN)					
FIXED EXPENSES	\$208.01							
NET FARM INCOME		(\$348.35)	(RETURN TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	\$68.45							
NET OPERATING PROFIT		(\$416.80)	(RETURN TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	\$7.24							
RETURN TO LAND AND RISK		(\$424.04)						

TABLE 9. Corn for silage, flood-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County,  
 Projected 2017  
 Planting dates: May 1 - May 20  
 Harvesting dates: September 1 - September 30

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
CORN SILAGE	\$35.00	21.00 TONS (HAULED)	\$735.00
<b>TOTAL</b>			<b>\$735.00</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$3.75	30 000	\$112.50		\$112.50
ANHYDROUS AMMONIA (NH3)	\$0.36	225 LBS	\$80.66		\$80.66
HERBICIDE	\$16.00	1 ACRE	\$16.00		\$16.00
CANAL WATER		48 AC. IN.		\$122.00	\$122.00
CANAL WATER (MAINTENANCE)		1 ACRE		\$8.00	\$8.00
<b>SUBTOTAL</b>			<b>\$209.16</b>	<b>\$130.00</b>	<b>\$339.16</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FLOW	96 HP	0.67 HR		\$5.23	\$8.57	\$3.42	\$21.70	\$38.91
DISC (2X)	96 HP	0.34 HR		\$2.65	\$4.35	\$1.27	\$13.92	\$22.19
HARROW	96 HP	0.19 HR		\$1.48	\$2.43	\$0.18	\$2.71	\$6.80
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.64	\$0.05	\$0.30	\$1.37
CORRUGATE	40 HP	0.21 HR		\$1.64	\$1.65	\$0.75	\$5.72	\$9.75
PRE-IRRIGATE		0.75 HR		\$5.63				\$5.63
PLANTER	96 HP	0.26 HR		\$2.03	\$3.32	\$0.67	\$37.17	\$43.20
CULTIVATOR (2X)	40 HP	0.42 HR		\$3.28	\$3.30	\$1.49	\$11.43	\$19.50
IRRIGATE (9X)		4.50 HR		\$33.75				\$33.75
<b>SUBTOTAL</b>		<b>7.39 HR</b>		<b>\$56.07</b>	<b>\$24.26</b>	<b>\$7.83</b>	<b>\$92.94</b>	<b>\$181.09</b>

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SILAGE CHOPPER, PTO	96 HP	0.71 HR		\$5.54	\$9.08	\$0.93	\$54.62	\$70.17
LOAD & HAUL	40 HP	0.71 HR		\$5.54	\$5.58	\$1.20	\$29.31	\$41.63
<b>SUBTOTAL</b>		<b>1.42 HR</b>		<b>\$11.08</b>	<b>\$14.66</b>	<b>\$2.13</b>	<b>\$83.94</b>	<b>\$111.81</b>

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.89 HR		\$6.94				\$6.94
EMPLOYEE BENEFITS			\$12.09				\$12.09
INSURANCE		\$1.34					\$1.34
LAND TAXES						\$2.44	\$2.44
SUPERVISION AND MANAGEMENT			\$57.73				\$57.73
OTHER EXPENSES		\$257.48					\$257.48
<b>SUBTOTAL</b>	<b>0.89 HR</b>	<b>\$258.83</b>	<b>\$76.76</b>			<b>\$2.44</b>	<b>\$338.02</b>

<b>TOTAL OPERATING EXPENSES</b>	<b>9.70 HR</b>	<b>\$467.99</b>	<b>\$143.90</b>	<b>\$38.91</b>	<b>\$9.96</b>	<b>\$309.32</b>	<b>\$970.08</b>
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<b>NET OPERATING PROFIT</b>							<b>(\$235.08)</b>
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INTEREST ON OPERATING CAPITAL	(	\$114.00	@	5.50%	)		\$6.27
INTEREST ON EQUIPMENT INVESTMENT							\$87.68

<b>RETURN TO LAND AND RISK</b>							<b>(\$329.03)</b>
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BUDGET SUMMARY	
GROSS RETURN	\$735.00
VARIABLE OPERATING EXPENSES	\$516.86
RETURN OVER VARIABLE EXPENSES	\$218.14 (GROSS MARGIN)
FIXED EXPENSES	\$309.32
NET FARM INCOME	(\$91.18) (RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$143.90
NET OPERATING PROFIT	(\$235.08) (RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$93.95
<b>RETURN TO LAND AND RISK</b>	<b>(\$329.03)</b>

TABLE 10. Summary of per acre costs and returns for an 80 acre farm, San Juan County,  
Projected 2017

	ALFALFA ESTABLISHMENT	ALFALFA HAY	ANNUAL PASTURE ESTABLISHMENT	ANNUAL PASTURE	CORN FOR SILAGE
	TONS	TONS		AUMS	TONS
PRIMARY YIELD	2.25	5.00		12.00	21.00
PRIMARY PRICE	\$150.00	\$175.00		\$12.00	\$35.00
GOVERNMENT PAYMENTS	\$0.00	\$0.00		\$0.00	\$0.00
SECOND INCOME	\$10.00	\$20.00		\$0.00	\$0.00
GROSS RETURN	\$347.50	\$895.00		\$144.00	\$735.00
CASH OPERATING EXPENSES					
SEED	\$76.30		\$36.40		\$112.50
FERTILIZER	\$12.15	\$12.15	\$17.90	\$22.00	\$80.66
CHEMICALS		\$17.25			\$16.00
CROP INSURANCE					
OTHER PURCHASED INPUTS	\$25.45	\$56.56	\$0.00	\$0.00	\$0.00
CANAL WATER					
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$27.61	\$20.93	\$21.11	\$3.07	\$38.91
FUEL-IRRIGATION					
REPAIRS	\$6.96	\$2.46	\$6.19	\$0.91	\$9.96
CUSTOM CHARGES					
LAND TAXES	\$2.44	\$2.44		\$2.44	\$2.44
OTHER EXPENSES	\$0.82	\$258.52	\$0.50	\$258.36	\$258.83
TOTAL CASH EXPENSES	\$151.72	\$370.32	\$82.10	\$286.78	\$519.30
RETURN OVER CASH EXPENSES	\$195.78	\$524.68	(\$82.10)	(\$142.78)	\$215.70
FIXED EXPENSES	\$274.72	\$314.38	\$168.93	\$205.57	\$306.88
TOTAL EXPENSES	\$426.44	\$684.70	\$251.03	\$492.35	\$826.18
NET FARM INCOME	(\$78.94)	\$210.30	(\$251.03)	(\$348.35)	(\$91.18)
LABOR AND MANAGEMENT COSTS	\$98.74	\$133.33	\$54.69	\$68.45	\$143.90
NET OPERATING PROFIT	(\$177.68)	\$76.97	(\$305.72)	(\$416.80)	(\$235.08)
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL	\$3.54	\$2.49		\$0.66	\$6.27
INTEREST ON EQUIPMENT INVESTMENT	\$57.05	\$48.12		\$6.58	\$87.68
TOTAL CAPITAL COSTS	\$60.59	\$50.60	\$0.00	\$7.24	\$93.95
RETURN TO LAND AND RISK	(\$238.28)	\$26.37	(\$305.72)	(\$424.04)	(\$329.03)



TABLE 11. Whole farm summary, San Juan County,  
Projected 2017

GROSS RETURNS		
OAT HAY	6.00 ACRES	
CROP		\$2,025
GRAZING		\$60
ALFALFA HAY	34.00 ACRES	
CROP		\$29,750
GRAZING		\$680
PASTURE	20.00 ACRES	
GRAZING		\$2,880
CORN FOR SILAGE	20.00 ACRES	
CROP		\$14,700
GROSS RETURN		<u>\$50,095</u>
CASH OPERATING EXPENSES		
SEED		\$2,744
FERTILIZER		\$2,557
CHEMICALS		\$907
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$2,076
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,738
FUEL-IRRIGATION		\$0
REPAIRS		\$349
CUSTOM CHARGES		\$0
LAND TAXES		\$195
OTHER EXPENSES		\$19,139
TOTAL CASH EXPENSES		<u>\$29,705</u>
RETURN OVER CASH EXPENSES		\$20,390
FIXED EXPENSES		\$20,997
TOTAL EXPENSES		\$50,702
NET FARM INCOME		(\$607)
LABOR AND MANAGEMENT COSTS		\$9,427
NET OPERATING PROFIT		(\$10,035)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$244
INTEREST ON EQUIPMENT INVESTMENT		\$3,863
TOTAL CAPITAL COSTS		<u>\$4,108</u>
RETURN TO LAND AND RISK		<u>(\$14,142)</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	(\$16,542)	-7.42%
\$2,500 /ACRE	(\$20,142)	-3.93%
\$4,000 /ACRE	(\$23,742)	-2.67%
\$5,500 /ACRE	(\$27,342)	-2.03%
\$7,000 /ACRE	(\$30,942)	-1.63%
\$8,500 /ACRE	(\$34,542)	-1.36%

\* 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)