

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, Actual 2018
 Planting dates: April 15 - June 1
 Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
OAT HAY	\$170.00	2.25 TONS (STACKED)						\$382.50	
GRAZING	\$10.00	1.00 AUM						\$10.00	
TOTAL							\$392.50		
PURCHASED INPUTS									
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
ALFALFA SEED	\$2.95	20 LBS	\$59.00					\$59.00	
OAT SEED	\$0.37	45 LBS	\$16.65					\$16.65	
PHOSPHATE (P2O5)	\$0.49	45 LBS	\$22.05					\$22.05	
WIRE	\$1.32	19 LBS	\$25.45					\$25.45	
CANAL WATER		39 AC. IN.					\$146.25	\$146.25	
CANAL WATER (MAINTENANCE)		1 ACRE					\$8.00	\$8.00	
SUBTOTAL			\$123.15				\$154.25	\$277.40	
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
PLOW	96 HP	0.67 HR		\$5.23	\$12.44	\$3.39	\$49.40	\$70.45	
DISC (2X)	96 HP	0.34 HR		\$2.65	\$6.31	\$1.25	\$32.21	\$42.44	
HARROW	96 HP	0.19 HR		\$1.48	\$3.53	\$0.17	\$5.56	\$10.74	
FERTILIZE	96 HP	0.05 HR		\$0.39	\$0.93	\$0.04	\$0.44	\$1.80	
DRILL	96 HP	0.21 HR		\$1.64	\$3.90	\$0.41	\$43.76	\$49.71	
DITCHER (2X)	40 HP	0.10 HR		\$0.78	\$1.05	\$0.11	\$3.05	\$4.99	
IRRIGATE (9X)		2.25 HR		\$16.88	\$52.89	\$0.00	\$9.04	\$78.80	
SUBTOTAL		3.81 HR		\$29.04	\$81.06	\$5.37	\$143.45	\$258.93	
HARVEST OPERATIONS									
SWATHER	14 FT	0.16 HR		\$1.25	\$1.83	\$0.09	\$6.92	\$10.08	
BALER	96 HP	0.21 HR		\$1.64	\$3.90	\$0.22	\$3.77	\$9.53	
BALE WAGON	96 HP	0.20 HR		\$1.56	\$3.71	\$0.44	\$5.77	\$11.48	
SUBTOTAL		0.57 HR		\$4.45	\$9.44	\$0.74	\$16.46	\$31.09	
OVERHEAD EXPENSES									
DOWNTIME		1.74 HR		\$13.53				\$13.53	
EMPLOYEE BENEFITS				\$6.03				\$6.03	
INSURANCE			\$0.67					\$0.67	
LAND TAXES							\$2.44	\$2.44	
SUPERVISION AND MANAGEMENT				\$40.86				\$40.86	
SUBTOTAL		1.74 HR	\$0.67	\$60.42				\$2.44	\$63.53
TOTAL OPERATING EXPENSES		6.12 HR	\$123.82	\$93.91	\$90.50	\$6.12	\$316.60	\$630.95	
NET OPERATING PROFIT							(\$238.45)		
INTEREST ON OPERATING CAPITAL		(\$84.03	@	5.75%)	\$4.83		
INTEREST ON EQUIPMENT INVESTMENT							\$66.36		
RETURN TO LAND AND RISK							(\$309.64)		

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for an 80 acre farm, San Juan County, Actual 2018
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$230.00	5.20	TONS (STACKED)					\$1,196.00	
GRAZING	\$10.00	2.00	AUM					\$20.00	
TOTAL								\$1,216.00	
PURCHASED INPUTS									
	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
PHOSPHATE (P2O5)	\$0.49	40.00	LBS	\$19.60					\$19.60
INSECTICIDE (AERIAL)	\$19.20	1.00	ACRE	\$19.20					\$19.20
WIRE	\$1.32	43.00	LBS	\$56.76					\$56.76
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		6.00	YEARS					\$5.00	\$5.00
: Interest								\$51.61	\$51.61
CANAL WATER		46.00	AC. IN.					\$21.98	\$21.98
CANAL WATER (MAINTENANCE)		1	ACRE					\$172.50	\$172.50
								\$8.00	\$8.00
SUBTOTAL				\$95.56				\$259.09	\$354.65
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
FERTILIZE	96 HP	0.05	HR	\$0.39	\$0.93	\$0.04	\$0.44	\$1.80	
DITCHER (2X)	40 HP	0.10	HR	\$0.78	\$1.05	\$0.11	\$3.05	\$4.99	
IRRIGATE (13X)		3.25	HR	\$24.38	\$62.38	\$0.00	\$10.66	\$97.42	
SUBTOTAL		3.40	HR	\$25.55	\$64.37	\$0.15	\$14.14	\$104.21	
HARVEST OPERATIONS									
SWATHER (3X)	14 FT	0.48	HR	\$3.74	\$5.48	\$0.26	\$20.75	\$30.24	
BALER (3X)	40 HP	0.63	HR	\$4.91	\$6.64	\$0.74	\$10.94	\$23.23	
BALE WAGON (3X)	96 HP	0.60	HR	\$4.68	\$11.14	\$1.31	\$17.31	\$34.44	
SUBTOTAL		1.71	HR	\$13.34	\$23.27	\$2.31	\$49.00	\$87.91	
OVERHEAD EXPENSES									
DOWNTIME		0.44	HR	\$3.43				\$3.43	
EMPLOYEE BENEFITS				\$7.00				\$7.00	
INSURANCE				\$0.78				\$0.78	
LAND TAXES								\$2.44	
SUPERVISION AND MANAGEMENT				\$89.25				\$89.25	
OTHER EXPENSES				\$289.03				\$289.03	
SUBTOTAL		0.44	HR	\$289.80	\$99.68			\$2.44	\$391.92
TOTAL OPERATING EXPENSES		5.55	HR	\$385.36	\$138.56	\$87.64	\$2.46	\$324.67	\$938.69
NET OPERATING PROFIT								\$277.31	
INTEREST ON OPERATING CAPITAL		(\$66.04	@	5.75%)			\$3.80
INTEREST ON EQUIPMENT INVESTMENT								\$35.99	
RETURN TO LAND AND RISK								\$237.53	
BUDGET SUMMARY									
GROSS RETURN				\$1,216.00					
VARIABLE OPERATING EXPENSES	\$475.46								
RETURN OVER VARIABLE EXPENSES		\$740.54	(GROSS MARGIN)						
FIXED EXPENSES	\$324.67								
NET FARM INCOME		\$415.87	(RETURN TO CAPITAL, LABOR, LAND & RISK)						
LABOR AND MANAGEMENT COST	\$138.56								
NET OPERATING PROFIT		\$277.31	(RETURN TO CAPITAL, LAND & RISK)						
CAPITAL COSTS	\$39.79								
RETURN TO LAND AND RISK		\$237.53							

TABLE 8. Summary of per acre costs and returns for an 80 acre farm, San Juan County,
Actual 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY
	TONS	TONS
PRIMARY YIELD	2.25	5.20
PRIMARY PRICE	\$170.00	\$230.00
GOVERNMENT PAYMENTS	\$0.00	\$0.00
SECOND INCOME	\$10.00	\$20.00
GROSS RETURN	\$392.50	\$1,216.00
CASH OPERATING EXPENSES		
SEED	\$75.65	
FERTILIZER	\$22.05	\$19.60
CHEMICALS		\$19.20
CROP INSURANCE		
OTHER PURCHASED INPUTS	\$25.45	\$56.76
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$37.61	\$25.25
FUEL-IRRIGATION	\$52.89	\$62.38
REPAIRS	\$6.12	\$2.46
CUSTOM CHARGES		
LAND TAXES	\$2.44	\$2.44
OTHER EXPENSES	\$0.67	\$289.80
TOTAL CASH EXPENSES	\$222.89	\$477.90
RETURN OVER CASH EXPENSES	\$169.61	\$738.10
FIXED EXPENSES	\$314.16	\$322.23
TOTAL EXPENSES	\$537.05	\$800.13
NET FARM INCOME	(\$144.55)	\$415.87
LABOR AND MANAGEMENT COSTS	\$93.91	\$138.56
NET OPERATING PROFIT	(\$238.45)	\$277.31
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL	\$4.83	\$3.80
INTEREST ON EQUIPMENT INVESTMENT	\$66.36	\$35.99
TOTAL CAPITAL COSTS	\$71.19	\$39.79
RETURN TO LAND AND RISK	(\$309.64)	\$237.53

TABLE 9. Whole farm summary, San Juan County,
Actual 2018

GROSS RETURNS		
OAT HAY	11.00 ACRES	
CROP		\$4,318
ALFALFA HAY	69.00 ACRES	
CROP		\$82,524
GRAZING		\$1,380
GROSS RETURN		\$88,222
CASH OPERATING EXPENSES		
SEED		\$832
FERTILIZER		\$1,595
CHEMICALS		\$1,325
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$4,196
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$2,156
FUEL-IRRIGATION		\$4,886
REPAIRS		\$237
CUSTOM CHARGES		\$0
LAND TAXES		\$195
OTHER EXPENSES		\$20,004
TOTAL CASH EXPENSES		\$35,427
RETURN OVER CASH EXPENSES		\$52,795
FIXED EXPENSES		\$22,129
TOTAL EXPENSES		\$57,555
NET FARM INCOME		\$30,666
LABOR AND MANAGEMENT COSTS		\$10,594
NET OPERATING PROFIT		\$20,072
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$315
INTEREST ON EQUIPMENT INVESTMENT		\$3,213
TOTAL CAPITAL COSTS		\$3,528
RETURN TO LAND AND RISK		\$16,544

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	\$14,144	15.97%
\$2,500 /ACRE	\$10,544	8.17%
\$4,000 /ACRE	\$6,944	5.49%
\$5,500 /ACRE	\$3,344	4.13%
\$7,000 /ACRE	(\$256)	3.31%
\$8,500 /ACRE	(\$3,856)	2.77%

* 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)