

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Actual 2018
Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
PURCHASED INPUTS									
ALFALFA SEED	\$2.95	30 LBS							\$88.50
PUMP WATER*		8 AC. IN.							\$88.50
SUBTOTAL									\$88.50
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$3.69	\$4.11	\$0.39	\$3.03	\$11.23	
PLOW	50 HP	1.05 HR		\$9.92	\$11.07	\$1.39	\$17.05	\$39.44	
DISC (2X)	50 HP	0.78 HR		\$7.37	\$8.23	\$1.47	\$12.28	\$29.34	
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$6.75	\$0.66	\$7.99	\$21.44	
DRILL	50 HP	0.21 HR		\$1.98	\$2.21	\$0.43	\$34.72	\$39.36	
IRRIGATE (4X)		2.00 HR		\$15.00	\$18.81	\$0.00	\$6.64	\$40.46	
SUBTOTAL		5.07 HR		\$44.01	\$51.19	\$4.34	\$81.72	\$181.27	
OVERHEAD EXPENSES									
DOWNTIME		0.77 HR		\$7.25				\$7.25	
EMPLOYEE BENEFITS				\$5.28				\$5.28	
FARM INSURANCE			\$0.53					\$0.53	
SUPERVISION AND MANAGEMENT				\$14.33				\$14.33	
SUBTOTAL		0.77 HR	\$0.53	\$26.86				\$27.39	
TOTAL OPERATING EXPENSES		5.84 HR	\$89.03	\$70.87	\$51.19	\$4.34	\$81.72	\$297.15	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Actual 2018
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$230.00	6.25	TONS (STACKED)					\$1,437.50	
TOTAL								\$1,437.50	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
FERT. (ALFALFA MIX)	\$0.16	250	LBS	\$40.00					\$40.00
INSECTICIDE	\$23.97	1	ACRE	\$23.97					\$23.97
WIRE	\$0.36	56	LBS	\$20.16					\$20.16
ESTABLISHMENT: Principal		10	YEARS					\$29.72	\$29.72
: Interest								\$7.38	\$7.38
PUMP WATER*		45	AC. IN.						
SUBTOTAL				\$84.13				\$37.10	\$121.23
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (11X)		5.50	HR	\$41.25	\$105.83	\$0.00	\$37.36	\$184.44	
SUBTOTAL		5.50	HR	\$41.25	\$105.83	\$0.00	\$37.36	\$184.44	
HARVEST OPERATIONS									
SWATHER (5X)	14 FT	0.80	HR	\$7.56	\$0.00	\$0.20	\$16.10	\$23.86	
BALER, PTO (5X)	50 HP	1.05	HR	\$9.92	\$11.07	\$1.23	\$17.96	\$40.18	
BALEWAGON, PTO (5X)	50 HP	1.00	HR	\$9.45	\$10.55	\$2.29	\$28.26	\$50.55	
SUBTOTAL		2.85	HR	\$26.93	\$21.62	\$3.72	\$62.32	\$114.59	
OVERHEAD EXPENSES									
DOWNTIME		0.71	HR	\$6.73				\$6.73	
EMPLOYEE BENEFITS				\$8.18				\$8.18	
FARM INSURANCE				\$0.82				\$0.82	
LAND TAXES								\$3.22	
SUPERVISION AND MANAGEMENT				\$64.43				\$64.43	
OTHER EXPENSES				\$298.39				\$298.39	
SUBTOTAL		0.71	HR	\$299.21	\$79.34			\$3.22	\$381.77
TOTAL OPERATING EXPENSES		9.06	HR	\$383.34	\$147.52	\$127.45	\$3.72	\$139.99	\$802.03
NET OPERATING PROFIT								\$635.47	
INTEREST ON OPERATING CAPITAL		(\$70.64	@	5.75%)		\$4.06	
INTEREST ON EQUIPMENT INVESTMENT								\$52.42	
RETURN TO LAND AND RISK								\$578.98	

* Pump water costs are shown under irrigation in the preharvest operations section.
BUDGET SUMMARY

GROSS RETURN		\$1,437.50	
VARIABLE OPERATING EXPENSES	\$518.58		
RETURN OVER VARIABLE EXPENSES		\$918.92	(GROSS MARGINS)
FIXED EXPENSES	\$139.99		
NET FARM INCOME		\$778.93	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$147.52		
NET OPERATING PROFIT		\$631.41	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$52.42		
RETURN TO LAND AND RISK		\$578.98	

TABLE 8. Oats for hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Actual 2018
 Planting dates: September 1 - November 1
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD							TOTAL	
GROSS RETURNS										
OATS FOR HAY	\$160.00	3.00 TONS (STACKED)							\$480.00	
TOTAL									\$480.00	
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PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL	
OAT SEED	\$0.37	100 LBS	\$37.00						\$37.00	
NITROGEN (N)	\$0.42	100 LBS	\$42.00						\$42.00	
PUMP WATER*		18 AC. IN.								
SUBTOTAL			\$79.00						\$79.00	
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PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL		
DISC	50 HP	0.39 HR		\$3.69	\$4.11	\$0.73	\$6.14	\$14.67		
PLOW	50 HP	1.05 HR		\$9.92	\$11.07	\$1.39	\$17.05	\$39.44		
DISC (2X)	50 HP	0.78 HR		\$7.37	\$8.23	\$1.47	\$12.28	\$29.34		
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$6.75	\$0.66	\$7.99	\$21.44		
DRILL	50 HP	0.21 HR		\$1.98	\$2.21	\$0.43	\$34.72	\$39.36		
IRRIGATE (4X)		2.00 HR		\$15.00	\$42.33	\$0.00	\$14.94	\$72.28		
SUBTOTAL		5.07 HR		\$44.01	\$74.71	\$4.68	\$93.13	\$216.53		
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HARVEST OPERATIONS										
SWATHER	14 FT	0.16 HR		\$1.51	\$0.00	\$0.04	\$3.22	\$4.77		
BALER, PTO	50 HP	0.21 HR		\$1.98	\$2.21	\$0.25	\$3.59	\$8.04		
BALE WAGON	50 HP	0.20 HR		\$1.89	\$2.11	\$0.46	\$5.65	\$10.11		
SUBTOTAL		0.57 HR		\$5.39	\$4.32	\$0.74	\$12.46	\$22.92		
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OVERHEAD EXPENSES										
DOWNTIME		0.91 HR		\$8.60				\$8.60		
EMPLOYEE BENEFITS				\$5.93				\$5.93		
FARM INSURANCE				\$0.59				\$0.59		
LAND TAXES							\$1.61	\$1.61		
SUPERVISION AND MANAGEMENT				\$23.02				\$23.02		
OTHER EXPENSES				\$149.20				\$149.20		
SUBTOTAL		0.91 HR		\$149.79	\$37.55		\$1.61	\$188.95		
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TOTAL OPERATING EXPENSES		6.55 HR		\$228.79	\$86.95	\$79.04	\$5.42	\$107.20	\$507.39	
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NET OPERATING PROFIT									(\$27.39)	
INTEREST ON OPERATING CAPITAL		(\$59.77 @	5.75%)					\$3.44	
INTEREST ON EQUIPMENT INVESTMENT									\$40.75	
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RETURN TO LAND AND RISK									(\$71.58)	
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* Pump water costs are shown under irrigation in the preharvest operations section.										
BUDGET SUMMARY										
GROSS RETURN				\$480.00						
VARIABLE OPERATING EXPENSES	\$316.68									
RETURN OVER VARIABLE EXPENSES	\$163.32	(GROSS MARGINS)								
FIXED EXPENSES	\$107.20									
NET FARM INCOME				\$56.11	(RETURNS TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	\$86.95									
NET OPERATING PROFIT				(\$30.83)	(RETURNS TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	\$40.75									
RETURN TO LAND AND RISK				(\$71.58)						

TABLE 9. Sorghum-sudan hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County,
 Actual 2018
 Planting dates: May 1 - June 1
 Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
SORGHUM/SUDAN HAY	\$160.00	5.00	TONS (STACKED)					\$800.00
TOTAL								\$800.00
PURCHASED INPUTS								
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$1.04	50 LBS	\$52.00					\$52.00
NITROGEN (N)	\$0.42	100 LBS	\$42.00					\$42.00
PUMP WATER*		16 AC. IN.						
SUBTOTAL								\$94.00
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$3.69	\$4.11	\$0.73	\$6.14	\$14.67
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$6.75	\$0.66	\$7.99	\$21.44
DRILL	50 HP	0.21 HR		\$1.98	\$2.21	\$0.43	\$34.72	\$39.36
IRRIGATE (4X)		2.00 HR		\$15.00	\$37.63	\$0.00	\$13.28	\$65.91
SUBTOTAL								\$141.39
HARVEST OPERATIONS								
SWATHER (2X)	14 FT	0.32 HR		\$3.02	\$0.00	\$0.08	\$6.44	\$9.54
BALER, PTO (2X)	50 HP	0.42 HR		\$3.97	\$4.43	\$0.49	\$7.18	\$16.07
BALE WAGON (2X)	50 HP	0.40 HR		\$3.78	\$4.22	\$0.92	\$11.31	\$20.22
SUBTOTAL								\$45.84
OVERHEAD EXPENSES								
DOWNTIME		0.60 HR		\$5.62				\$5.62
EMPLOYEE BENEFITS				\$4.50				\$4.50
FARM INSURANCE			\$0.45					\$0.45
LAND TAXES						\$1.61		\$1.61
SUPERVISION AND MANAGEMENT				\$35.19				\$35.19
OTHER EXPENSES			\$149.20					\$149.20
SUBTOTAL								\$196.57
TOTAL OPERATING EXPENSES		4.98 HR	\$243.65	\$82.80	\$59.36	\$3.31	\$88.68	\$477.79
NET OPERATING PROFIT								\$322.21
INTEREST ON OPERATING CAPITAL		(\$60.98 @	5.75%)				\$3.51
INTEREST ON EQUIPMENT INVESTMENT								\$36.54
RETURN TO LAND AND RISK								\$282.17

* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$800.00	
VARIABLE OPERATING EXPENSES	\$309.82		
RETURN OVER VARIABLE EXPENSES	\$490.18	(GROSS MARGINS)	
FIXED EXPENSES	\$88.68		
NET FARM INCOME	\$401.51	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$82.80		
NET OPERATING PROFIT	\$318.70	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$36.54		
RETURN TO LAND AND RISK	\$282.17		

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County,
Actual 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.25	3.00	5.00
PRIMARY PRICE		\$230.00	\$160.00	\$160.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$1,437.50	\$480.00	\$800.00
CASH OPERATING EXPENSES				
SEED	\$88.50		\$37.00	\$52.00
FERTILIZER		\$40.00	\$42.00	\$42.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$32.38	\$21.62	\$36.70	\$21.73
FUEL-IRRIGATION	\$18.81	\$105.83	\$42.33	\$37.63
REPAIRS	\$4.34	\$3.72	\$5.42	\$3.31
CUSTOM CHARGES				
LAND TAXES		\$3.22	\$1.61	\$1.61
OTHER EXPENSES	\$0.53	\$299.21	\$149.79	\$149.65
TOTAL CASH EXPENSES	\$144.56	\$517.74	\$314.86	\$307.92
RETURN OVER CASH EXPENSES	(\$144.56)	\$919.76	\$165.14	\$492.08
FIXED EXPENSES	\$81.72	\$136.77	\$105.59	\$87.07
TOTAL EXPENSES	\$226.28	\$654.51	\$420.45	\$394.99
NET FARM INCOME	(\$226.28)	\$782.99	\$59.55	\$405.01
LABOR AND MANAGEMENT COSTS	\$70.87	\$147.52	\$86.95	\$82.80
NET OPERATING PROFIT	(\$297.15)	\$635.47	(\$27.39)	\$322.21
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$4.06	\$3.44	\$3.51
INTEREST ON EQUIPMENT INVESTMENT		\$52.42	\$40.75	\$36.54
TOTAL CAPITAL COSTS	\$0.00	\$56.49	\$44.19	\$40.04
RETURN TO LAND AND RISK	(\$297.15)	\$578.98	(\$71.58)	\$282.17

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,
Actual 2018

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$57,500
OATS FOR HAY	5.00 ACRES	
CROP		\$2,400
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$4,000
GROSS RETURN		<u>\$63,900</u>
CASH OPERATING EXPENSES		
SEED		\$799
FERTILIZER		\$2,020
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,286
FUEL-IRRIGATION		\$4,708
REPAIRS		\$210
CUSTOM CHARGES		\$0
LAND TAXES		\$145
OTHER EXPENSES		\$13,468
TOTAL CASH EXPENSES		<u>\$24,402</u>
RETURN OVER CASH EXPENSES		\$39,498
FIXED EXPENSES		\$5,137
TOTAL EXPENSES		\$29,539
NET FARM INCOME		\$34,361
LABOR AND MANAGEMENT COSTS		\$7,033
NET OPERATING PROFIT		\$27,328
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$197
INTEREST ON EQUIPMENT INVESTMENT		\$2,483
TOTAL CAPITAL COSTS		<u>\$2,681</u>
RETURN TO LAND AND RISK		<u>\$24,648</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$23,598	41.23%
\$900 /ACRE	\$23,298	35.83%
\$1,100 /ACRE	\$22,998	31.68%
\$1,300 /ACRE	\$22,698	28.39%
\$1,500 /ACRE	\$22,398	25.71%
\$1,700 /ACRE	\$22,098	23.50%
\$1,900 /ACRE	\$21,798	21.64%
\$2,100 /ACRE	\$21,498	20.05%

* 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)