

TABLE 1. Acreage Summary, Otero County, Projected 2019

BUDGET AREA.....TULAROSA BASIN, OTERO COUNTY			
FARM SIZE.....50 ACRES			
IRRIGATION TYPE.....SPRINKLER			
NUMBER OF CROPS.....3...			
WATER USE			
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	4.00 *	8	32
ALFALFA HAY	40.00	45	1,800
OAT HAY	5.00	18	90
SORGHUM/SUDAN	5.00 *	16	80
ROADS, DITCHES, HOMESTEAD	5.00		
TOTAL	50.00		2,002
ACRE FEET PER ACRE OF WATER RIGHTS			3.34

\* DOUBLE-CROPPED

TABLE 2. Basic cost information for Tularosa Basin, Otero County, Projected 2019

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$9.45
General & Irrigators	\$/hour	\$7.50
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.42
Seed:		
Alfalfa	\$/pound	\$3.05
Oats for Hay	\$/pound	\$0.34
Natural Gas (Gas NM) (service charge)		
	\$/MCF	\$4.01
	\$/month	\$10.00
Diesel fuel	\$/gallon	\$2.65
Gasoline	\$/gallon	\$2.35
Electricity (Otero Coop)	cents/KwHr	7.34
Employee Liability Insurance	\$/ \$1,000 wages	\$12.00
Employee Benefits	percent/wages	12.00%
Labor Downtime	percent	25.00%
Financial Rates:		
Operating Capital Interest Rate	percent	5.50%
Land Interest Rate	percent	5.00%
Equipment Interest Rate	percent	5.50%
Expected Inflation Rate	percent	3.00%
Land Taxes	\$300.00 /acre (full value)	\$3.22
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value)
		\$32.21 \$24.53
Supervision Factors		
Field Crop-Irrigation	\$/acre	\$1.00
Field Crop-Equipment & General	\$/acre	\$0.50
Management Rate	percent	4.00%

TABLE 3. Overhead cost information for Tularosa Basin, Otero County, Projected 2019

Item			
Electricity (Domestic & Shop)		\$83.20 per month	\$998
Telephone		\$89.60 per month	\$1,075
Accounting & Legal			\$192
Misc. Supplies & Hand Tools			\$666
Pickup and Auto			
miles	6,592	@ \$0.500 per mile	\$3,296
Insurance			
- general liability (non-employee)			\$307
- fire/theft			\$205
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$307
Dues, fees, publications			\$166
Farmstead Equipment			\$205
Total			\$13,428
Total per planted acre			\$298.39

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2019  
Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<b>PURCHASED INPUTS</b>									
ALFALFA SEED	\$3.05	30 LBS							\$91.50
PUMP WATER*		8 AC. IN.							\$91.50
SUBTOTAL									\$91.50
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	50 HP	0.39 HR		\$3.69	\$3.43	\$0.39	\$3.03	\$10.54	
PLOW	50 HP	1.05 HR		\$9.92	\$9.23	\$1.39	\$17.05	\$37.59	
DISC (2X)	50 HP	0.78 HR		\$7.37	\$6.86	\$1.47	\$12.28	\$27.97	
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$5.62	\$0.66	\$7.99	\$20.32	
DRILL	50 HP	0.21 HR		\$1.98	\$1.85	\$0.43	\$34.72	\$38.99	
IRRIGATE (4X)		2.00 HR		\$15.00	\$18.81	\$0.00	\$6.64	\$40.46	
SUBTOTAL		5.07 HR		\$44.01	\$45.80	\$4.34	\$81.72	\$175.87	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.77 HR		\$7.25				\$7.25	
EMPLOYEE BENEFITS				\$5.28				\$5.28	
FARM INSURANCE			\$0.53					\$0.53	
SUPERVISION AND MANAGEMENT				\$14.23				\$14.23	
SUBTOTAL		0.77 HR	\$0.53	\$26.76				\$27.29	
<b>TOTAL OPERATING EXPENSES</b>		5.84 HR	\$92.03	\$70.78	\$45.80	\$4.34	\$81.72	\$294.66	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2019  
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL	
<b>GROSS RETURNS</b>									
ALFALFA HAY	\$185.00	6.00	TONS (STACKED)					\$1,110.00	
<b>TOTAL</b>								<b>\$1,110.00</b>	
<hr/>									
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					\$29.47	\$29.47
: Interest								\$6.96	\$6.96
PUMP WATER*		45	AC. IN.						
<b>SUBTOTAL</b>				<b>\$84.13</b>				<b>\$36.42</b>	<b>\$120.56</b>
<hr/>									
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	
<b>SUBTOTAL</b>		<b>5.50</b>	<b>HR</b>	<b>\$41.25</b>	<b>\$105.83</b>	<b>\$0.00</b>	<b>\$37.36</b>	<b>\$184.44</b>	
<hr/>									
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	\$9.23	\$1.23	\$17.96	\$38.34	
BALEWAGON, PTO (5X)	50 HP	1.00	HR	\$9.45	\$8.79	\$2.29	\$28.26	\$48.80	
<b>SUBTOTAL</b>		<b>2.85</b>	<b>HR</b>	<b>\$26.93</b>	<b>\$18.02</b>	<b>\$3.72</b>	<b>\$62.32</b>	<b>\$110.99</b>	
<hr/>									
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				\$51.33				\$51.33	
OTHER EXPENSES				\$298.39				\$298.39	
<b>SUBTOTAL</b>		<b>0.71</b>	<b>HR</b>	<b>\$299.21</b>	<b>\$66.24</b>			<b>\$3.22</b>	<b>\$368.67</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>9.06</b>	<b>HR</b>	<b>\$383.34</b>	<b>\$134.42</b>	<b>\$123.85</b>	<b>\$3.72</b>	<b>\$139.32</b>	<b>\$784.65</b>
<b>NET OPERATING PROFIT</b>								<b>\$325.35</b>	
INTEREST ON OPERATING CAPITAL		(	\$70.34	@	5.50%	)		\$3.87	
INTEREST ON EQUIPMENT INVESTMENT								\$50.14	
<b>RETURN TO LAND AND RISK</b>								<b>\$271.33</b>	

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

GROSS RETURN		\$1,110.00	
VARIABLE OPERATING EXPENSES	\$514.78		
RETURN OVER VARIABLE EXPENSES		\$595.22	(GROSS MARGINS)
FIXED EXPENSES	\$139.32		
NET FARM INCOME		\$455.90	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$134.42		
NET OPERATING PROFIT		\$321.48	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$50.14		
RETURN TO LAND AND RISK		\$271.33	

TABLE 8. Oats for hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2019  
 Planting dates: September 1 - November 1  
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OATS FOR HAY	\$150.00	3.00 TONS (STACKED)						\$450.00
TOTAL								\$450.00
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PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
OAT SEED	\$0.34	100 LBS	\$34.00					\$34.00
NITROGEN (N)	\$0.42	100 LBS	\$42.00					\$42.00
PUMP WATER*		18 AC. IN.						
SUBTOTAL			\$76.00					\$76.00
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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	\$3.43	\$0.73	\$6.14	\$13.99
PLOW	50 HP	1.05 HR		\$9.92	\$9.23	\$1.39	\$17.05	\$37.59
DISC (2X)	50 HP	0.78 HR		\$7.37	\$6.86	\$1.47	\$12.28	\$27.97
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$5.62	\$0.66	\$7.99	\$20.32
DRILL	50 HP	0.21 HR		\$1.98	\$1.85	\$0.43	\$34.72	\$38.99
IRRIGATE (4X)		2.00 HR		\$15.00	\$42.33	\$0.00	\$14.94	\$72.28
SUBTOTAL		5.07 HR		\$44.01	\$69.32	\$4.68	\$93.13	\$211.13
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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	\$1.85	\$0.25	\$3.59	\$7.67
BALE WAGON	50 HP	0.20 HR		\$1.89	\$1.76	\$0.46	\$5.65	\$9.76
SUBTOTAL		0.57 HR		\$5.39	\$3.60	\$0.74	\$12.46	\$22.20
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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				\$21.82				\$21.82
OTHER EXPENSES			\$149.20					\$149.20
SUBTOTAL		0.91 HR	\$149.79	\$36.35		\$1.61		\$187.75
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TOTAL OPERATING EXPENSES		6.55 HR	\$225.79	\$85.75	\$72.92	\$5.42	\$107.20	\$497.08
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NET OPERATING PROFIT								(\$47.08)
INTEREST ON OPERATING CAPITAL		( \$56.86 @ 5.50% )						\$3.13
INTEREST ON EQUIPMENT INVESTMENT								\$38.98
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RETURN TO LAND AND RISK								(\$89.19)
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* Pump water costs are shown under irrigation in the preharvest operations section.								
BUDGET SUMMARY								
GROSS RETURN			\$450.00					
VARIABLE OPERATING EXPENSES	\$307.26							
RETURN OVER VARIABLE EXPENSES		\$142.74		(GROSS MARGINS)				
FIXED EXPENSES	\$107.20							
NET FARM INCOME		\$35.54		(RETURNS TO CAPITAL, LABOR, LAND & RISK)				
LABOR AND MANAGEMENT COST	\$85.75							
NET OPERATING PROFIT		(\$50.20)		(RETURNS TO CAPITAL, LAND & RISK)				
CAPITAL COSTS	\$38.98							
RETURN TO LAND AND RISK		(\$89.19)						

TABLE 9. Sorghum-sudan hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2019  
 Planting dates: May 1 - June 1  
 Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
SORGHUM/SUDAN HAY	\$160.00	5.00 TONS (STACKED)						\$800.00
<b>TOTAL</b>								<b>\$800.00</b>
<b>PURCHASED INPUTS</b>								
	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.						
<b>SUBTOTAL</b>								<b>\$94.00</b>
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$3.69	\$3.43	\$0.73	\$6.14	\$13.99
FLOAT (2X)	50 HP	0.64 HR		\$6.05	\$5.62	\$0.66	\$7.99	\$20.32
DRILL	50 HP	0.21 HR		\$1.98	\$1.85	\$0.43	\$34.72	\$38.99
IRRIGATE (4X)		2.00 HR		\$15.00	\$37.63	\$0.00	\$13.28	\$65.91
<b>SUBTOTAL</b>								<b>\$139.21</b>
<b>HARVEST OPERATIONS</b>								
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	\$3.69	\$0.49	\$7.18	\$15.33
BALE WAGON (2X)	50 HP	0.40 HR		\$3.78	\$3.52	\$0.92	\$11.31	\$19.52
<b>SUBTOTAL</b>								<b>\$44.40</b>
<b>OVERHEAD EXPENSES</b>								
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
<b>SUBTOTAL</b>								<b>\$196.57</b>
<b>TOTAL OPERATING EXPENSES</b>								<b>\$474.17</b>
<b>NET OPERATING PROFIT</b>								<b>\$325.83</b>
INTEREST ON OPERATING CAPITAL		( \$60.31 @	5.50%	)				\$3.32
INTEREST ON EQUIPMENT INVESTMENT								\$34.95
<b>RETURN TO LAND AND RISK</b>								<b>\$287.56</b>

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

**BUDGET SUMMARY**

GROSS RETURN		\$800.00	
VARIABLE OPERATING EXPENSES	\$306.01		
RETURN OVER VARIABLE EXPENSES	\$493.99	(GROSS MARGINS)	
FIXED EXPENSES	\$88.68		
NET FARM INCOME	\$405.32	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$82.80		
NET OPERATING PROFIT	\$322.51	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$34.95		
RETURN TO LAND AND RISK	\$287.56		

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County,  
Projected 2019

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		6.00	3.00	5.00
PRIMARY PRICE		\$185.00	\$150.00	\$160.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$1,110.00	\$450.00	\$800.00
CASH OPERATING EXPENSES				
SEED	\$91.50		\$34.00	\$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	\$26.98	\$18.02	\$30.59	\$18.11
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	\$142.17	\$514.13	\$305.74	\$304.30
RETURN OVER CASH EXPENSES	(\$142.17)	\$595.87	\$144.26	\$495.70
FIXED EXPENSES	\$81.72	\$136.10	\$105.59	\$87.07
TOTAL EXPENSES	\$223.89	\$650.23	\$411.33	\$391.37
NET FARM INCOME	(\$223.89)	\$459.77	\$38.67	\$408.63
LABOR AND MANAGEMENT COSTS	\$70.78	\$134.42	\$85.75	\$82.80
NET OPERATING PROFIT	(\$294.66)	\$325.35	(\$47.08)	\$325.83
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$3.87	\$3.13	\$3.32
INTEREST ON EQUIPMENT INVESTMENT		\$50.14	\$38.98	\$34.95
TOTAL CAPITAL COSTS	\$0.00	\$54.01	\$42.11	\$38.27
RETURN TO LAND AND RISK	(\$294.66)	\$271.33	(\$89.19)	\$287.56

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,  
Projected 2019

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$44,400
OATS FOR HAY	5.00 ACRES	
CROP		\$2,250
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$4,000
GROSS RETURN		<u>\$50,650</u>
CASH OPERATING EXPENSES		
SEED		\$796
FERTILIZER		\$2,020
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$1,072
FUEL-IRRIGATION		\$4,708
REPAIRS		\$210
CUSTOM CHARGES		\$0
LAND TAXES		\$145
OTHER EXPENSES		\$13,468
TOTAL CASH EXPENSES		<u>\$24,184</u>
RETURN OVER CASH EXPENSES		\$26,466
FIXED EXPENSES		\$5,120
TOTAL EXPENSES		\$29,304
NET FARM INCOME		\$21,346
LABOR AND MANAGEMENT COSTS		\$6,503
NET OPERATING PROFIT		\$14,843
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$187
INTEREST ON EQUIPMENT INVESTMENT		\$2,375
TOTAL CAPITAL COSTS		<u>\$2,562</u>
RETURN TO LAND AND RISK		<u>\$12,281</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	\$11,231	22.40%
\$900 /ACRE	\$10,931	19.46%
\$1,100 /ACRE	\$10,631	17.20%
\$1,300 /ACRE	\$10,331	15.42%
\$1,500 /ACRE	\$10,031	13.97%
\$1,700 /ACRE	\$9,731	12.77%
\$1,900 /ACRE	\$9,431	11.75%
\$2,100 /ACRE	\$9,131	10.89%

\* 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)