

TABLE 1. Acreage Summary, Union County, Projected 2016

BUDGET AREA.....	DRY CIMARRON AREA, UNION COUNTY		
FARM SIZE.....	80 ACRES		
IRRIGATION TYPE.....	FLOOD		
NUMBER OF CROPS..	2		
	WATER USE		
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	4	4.5	18
ALFALFA	40	24	960
NATIVE GRASS	40	18	720
TOTAL	84		1,698
ACRE FEET PER ACRE OF WATER RIGHTS			1.68

TABLE 2. Basic cost information for Dry Cimarron area, Union County, Projected 2016

Item			
Labor Wage Rate:			
Equipment operators		\$/hour	\$8.55
General & Irrigators		\$/hour	\$7.50
Purchased Inputs:			
Seed:			
Alfalfa		\$/pound	\$6.00
Natural gas		\$/MCF	\$3.00
Diesel fuel		\$/gallon	\$2.65
Gasoline		\$/gallon	\$2.50
Electricity		cents/KwHr	7.94
LP Gas		\$/gallon	\$2.45
Baling Wire		\$/pound	\$1.68
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	5.50%
Land Interest Rate		percent	5.00%
Equipment Interest Rate		percent	5.50%
Real Interest Rate		percent	3.00%
Land Taxes	\$27.00	/acre (full value)	\$0.21
Personal Property Tax Rate	-NR - R	\$/(\$1,000 (Assessed Value)	\$23.18 \$20.51
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 the Dry Cimarron area, Projected 2016

Item			
Electricity (Domestic & Shop)	\$125.00	per month	\$1,500
Telephone	\$100.00	per month	\$1,200
Accounting & Legal			\$563
Misc. Supplies & Hand Tools			\$925
Pickup and Auto			
miles	12,875	@	\$0.500 per mile
Insurance			
- general liability (non-employee)			\$1,200
- fire/theft			\$781
Property Taxes			
- other than land & machinery			\$6,010
Building repairs and maintenance			\$594
Dues, fees, publications			\$300
Farmstead Equipment			\$94
		Total	\$19,604
		Total per planted acre	\$245.05

TABLE 6. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County,
 Projected 2016
 Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$6.00	18 LBS	\$108.00					\$108.00
CANAL WATER		5 AC. IN.						
SUBTOTAL			\$108.00					\$108.00
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMEN T RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	40 HP	0.20 HR		\$1.71	\$1.98	\$0.22	\$0.60	\$4.51
DISC	40 HP	0.17 HR		\$1.45	\$1.68	\$0.18	\$0.51	\$3.83
DRILL	40 HP	0.25 HR		\$2.14	\$2.48	\$0.27	\$0.75	\$5.64
DITCH MAINTENANCE		0.50 HR		\$4.28				\$4.28
IRRIGATE (1X)		0.75 HR		\$5.63				\$5.63
SUBTOTAL		1.87 HR		\$15.20	\$6.14	\$0.67	\$1.87	\$23.88
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.16 HR		\$1.33				\$1.33
EMPLOYEE BENEFITS				\$2.74				\$2.74
INSURANCE			\$0.30					\$0.30
SUPERVISION AND MANAGEMENT				\$10.29				\$10.29
SUBTOTAL		0.16 HR	\$0.30	\$14.35				\$14.66
<u>TOTAL OPERATING EXPENSES</u>		2.03 HR	\$108.30	\$29.55	\$6.14	\$0.67	\$1.87	\$146.54

TABLE 7. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Projected 2016
Harvesting dates: May 15 - September 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALF FA HAY	\$195.00	4.00 TONS (STACKED)	\$780.00
GRAZING	\$15.00	1.00 ACRE	\$15.00
TOTAL			\$795.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		10.00 YEARS		\$4.00	\$4.00
: Interest				\$14.65	\$14.65
BALING WIRE	\$1.68	34.28 LBS	\$57.59	\$4.73	\$4.73
CANAL WATER		16.00 AC. IN.	\$5.00		\$57.59
PUMP WATER*		8.00 AC. IN.			\$5.00
SUBTOTAL			\$62.59	\$23.38	\$85.97

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DITCH MAINTENANCE		0.50 HR		\$4.28				\$4.28
IRRIGATE (8X)		4.00 HR		\$30.00	\$6.64	\$0.00	\$14.41	\$51.05
SUBTOTAL		4.50 HR		\$34.28	\$6.64	\$0.00	\$14.41	\$55.33

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
MOWER (3X)	40 HP	1.11 HR		\$9.49	\$11.00	\$1.60	\$5.44	\$27.54
RAKE (3X)	40 HP	0.36 HR		\$3.08	\$3.57	\$0.54	\$3.59	\$10.78
BALER (3X)	40 HP	0.63 HR		\$5.39	\$6.24	\$0.78	\$8.12	\$20.52
HAUL (3X)	1 TON TRUCK	4.50 HR		\$38.48	\$75.75	\$37.46	\$56.79	\$208.47
SUBTOTAL		6.60 HR		\$56.43	\$96.57	\$40.38	\$73.93	\$267.31

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	1.65 HR		\$14.11				\$14.11
EMPLOYEE BENEFITS			\$16.33				\$16.33
INSURANCE			\$1.81				\$1.81
LAND TAXES						\$0.21	\$0.21
SUPERVISION AND MANAGEMENT			\$62.95				\$62.95
OTHER EXPENSES			\$245.05				\$245.05
SUBTOTAL	1.65 HR		\$246.86	\$93.38		\$0.21	\$340.45

TOTAL OPERATING EXPENSES	12.75 HR		\$309.45	\$184.09	\$103.21	\$40.38	\$111.93	\$749.07
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NET OPERATING PROFIT								\$45.93
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INTEREST ON OPERATING CAPITAL	(\$44.37 @ 5.50%)							\$2.44
INTEREST ON EQUIPMENT INVESTMENT								\$2.15

RETURN TO LAND AND RISK								\$41.34
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* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$795.00	
VARIABLE OPERATING EXPENSES	\$453.04		
RETURN OVER VARIABLE EXPENSES		\$341.96	(GROSS MARGIN)
FIXED EXPENSES	\$111.93		
NET FARM INCOME		\$230.02	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$184.09		
NET OPERATING PROFIT		\$45.93	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$4.59		
RETURN TO LAND AND RISK		\$41.34	

TABLE 8. Native grass hay, flood-irrigated, budgeted per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County,
 Projected 2016
 Harvesting dates: July 20 - September 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
HAY	\$165.00	1.50 TONS (STACKED)						\$247.50	
GRAZING	\$13.00	1.00 ACRE						\$13.00	
TOTAL							\$260.50		
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL		
LIVESTOCK FAC & EQUIP						\$4.00	\$4.00		
BALING WIRE		\$1.68	13 LBS	\$21.60			\$21.60		
CANAL WATER			12 AC. IN.	\$5.00			\$5.00		
PUMP WATER*			6 AC. IN.						
SUBTOTAL				\$26.60		\$4.00	\$30.60		
PREHARVEST OPERATIONS		POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DITCH MAINTENANCE			0.50 HR		\$4.28				\$4.28
IRRIGATE (5X)			2.50 HR		\$21.38	\$4.98	\$0.00	\$10.81	\$37.17
SUBTOTAL			3.00 HR		\$25.65	\$4.98	\$0.00	\$10.81	\$41.44
HARVEST OPERATIONS									
MOWER (2X)		40 HP	0.74 HR		\$6.33	\$7.33	\$1.07	\$3.63	\$18.36
RAKE (2X)		40 HP	0.24 HR		\$2.05	\$2.38	\$0.36	\$2.39	\$7.19
BALER, 1-TON (2X)		40 HP	0.42 HR		\$3.59	\$4.16	\$0.52	\$5.41	\$13.68
HAUL (2X)		TRUCK	1.60 HR		\$13.68	\$26.93	\$13.32	\$20.19	\$74.12
SUBTOTAL			3.00 HR	\$0.00	\$25.65	\$40.81	\$15.27	\$31.62	\$113.35
OVERHEAD EXPENSES									
DOWNTIME			0.75 HR		\$6.41				\$6.41
EMPLOYEE BENEFITS					\$9.23				\$9.23
INSURANCE				\$1.03					\$1.03
LAND TAXES								\$0.21	\$0.21
SUPERVISION AND MANAGEMENT					\$19.74				\$19.74
OTHER EXPENSES				\$245.05					\$245.05
SUBTOTAL			0.75 HR	\$246.07	\$35.38			\$0.21	\$281.66
TOTAL OPERATING EXPENSES			3.75 HR	\$272.67	\$86.68	\$45.79	\$15.27	\$46.64	\$467.05
NET OPERATING PROFIT								(\$206.55)	
INTEREST ON OPERATING CAPITAL			(\$19.22 @ 5.50%)						\$1.06
INTEREST ON EQUIPMENT INVESTMENT									\$21.11
RETURN TO LAND AND RISK								(\$228.71)	

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

BUDGET SUMMARY

GROSS RETURN		\$260.50	
VARIABLE OPERATING EXPENSES	\$333.73		
RETURN OVER VARIABLE EXPENSES		(\$73.23)	(GROSS MARGIN)
FIXED EXPENSES	\$46.64		
NET FARM INCOME		(\$119.87)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$86.68		
NET OPERATING PROFIT		(\$206.55)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$22.16		
RETURN TO LAND AND RISK		(\$228.71)	

TABLE 9. Summary of per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Projected 2016

	ALFALFA ESTABLISHMENT	ALFALFA HAY	NATIVE GRASS HAY
		TONS	TONS
PRIMARY YIELD		4.00	1.50
PRIMARY PRICE		\$195.00	\$165.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00
SECOND INCOME		\$15.00	\$13.00
GROSS RETURN		\$795.00	\$260.50
CASH OPERATING EXPENSES			
SEED	\$108.00		
FERTILIZER			
CHEMICALS			
CROP INSURANCE			
OTHER PURCHASED INPUTS		\$57.59	\$21.60
CANAL WATER		\$5.00	\$5.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$6.14	\$96.57	\$40.81
FUEL-IRRIGATION		\$6.64	\$4.98
REPAIRS	\$0.67	\$40.38	\$15.27
CUSTOM CHARGES			
LAND TAXES		\$0.21	\$0.21
OTHER EXPENSES	\$0.30	\$246.86	\$246.07
TOTAL CASH EXPENSES	\$115.12	\$453.25	\$333.94
RETURN OVER CASH EXPENSES	(\$115.12)	\$341.75	(\$73.44)
FIXED EXPENSES	\$1.87	\$111.72	\$46.43
TOTAL EXPENSES	\$116.98	\$564.98	\$380.37
NET FARM INCOME	(\$116.98)	\$230.02	(\$119.87)
LABOR AND MANAGEMENT COSTS	\$29.55	\$184.09	\$86.68
NET OPERATING PROFIT	(\$146.54)	\$45.93	(\$206.55)
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		\$2.44	\$1.06
INTEREST ON EQUIPMENT INVESTMENT		\$2.15	\$21.11
TOTAL CAPITAL COSTS	\$0.00	\$4.59	\$22.16
RETURN TO LAND AND RISK	(\$146.54)	\$41.34	(\$228.71)

TABLE 10. Whole farm summary, Union County,
Projected 2016

GROSS RETURNS		
ALFALFA HAY	40 ACRES	
CROP		\$31,200
GRAZING		\$600
NATIVE GRASS HAY	40 ACRES	
CROP		\$9,900
GRAZING		\$520
GROSS RETURN		<u>\$42,220</u>
CASH OPERATING EXPENSES		
SEED		\$432
FERTILIZER		\$0
CHEMICALS		\$0
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$3,167
CANAL WATER		\$400
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$5,520
FUEL-IRRIGATION		\$465
REPAIRS		\$2,229
CUSTOM CHARGES		\$0
LAND TAXES		\$17
OTHER EXPENSES		\$19,719
TOTAL CASH EXPENSES		<u>\$31,948</u>
RETURN OVER CASH EXPENSES		\$10,272
FIXED EXPENSES		\$5,748
TOTAL EXPENSES		\$37,696
NET FARM INCOME		\$4,524
LABOR AND MANAGEMENT COSTS		\$10,949
NET OPERATING PROFIT		(\$6,425)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$140
INTEREST ON EQUIPMENT INVESTMENT		\$930
TOTAL CAPITAL COSTS		<u>\$1,070</u>
RETURN TO LAND AND RISK		<u>(\$7,495)</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	(\$7,975)	-11.16%
\$350 /ACRE	(\$8,335)	-9.24%
\$500 /ACRE	(\$8,695)	-7.88%

* 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)