

TABLE 1. Acreage Summary, Union County,  
Actual 2014

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,  
Actual 2014

Item			
<b>Labor Wage Rate:</b>			
Equipment operators		\$/hour	\$8.55
General & Irrigators		\$/hour	\$7.50
<b>Purchased Inputs:</b>			
Seed:			
Alfalfa		\$/pound	\$6.00
Natural gas		\$/MCF	\$4.00
Diesel fuel		\$/gallon	\$3.83
Gasoline		\$/gallon	\$2.55
Electricity		cents/KwHr	7.94
LP Gas		\$/gallon	\$2.80
Baling Wire		\$/pound	\$1.32
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		\$27.00 /acre (full value)	\$0.21
Personal Property Tax Rate	-NR - R	\$/ \$1,000 (Assessed Value)	\$23.18 \$20.51
<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 the Dry Cimarron area,  
Actual 2014

Item			
Electricity (Domestic & Shop)		\$121.00 per month	\$1,452
Telephone		\$96.80 per month	\$1,162
Accounting & Legal			\$545
Misc. Supplies & Hand Tools			\$895
Pickup and Auto			
miles	12,463	@ \$0.500 per mile	\$6,232
<b>Insurance</b>			
- general liability (non-employee)			\$1,162
- fire/theft			\$756
<b>Property Taxes</b>			
- other than land & machinery			\$6,010
Building repairs and maintenance			\$575
Dues, fees, publications			\$290
Farmstead Equipment			\$91
Total			\$19,169
Total per planted acre			\$239.61



TABLE 6. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County,  
Actual 2014  
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<b>PURCHASED INPUTS</b>								
SEED	\$6.00	18 LBS	\$108.00					\$108.00
CANAL WATER		5 AC. IN.						
SUBTOTAL			\$108.00					\$108.00
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	40 HP	0.20 HR		\$1.71	\$2.86	\$0.22	\$0.60	\$5.39
DISC	40 HP	0.17 HR		\$1.45	\$2.44	\$0.18	\$0.51	\$4.58
DRILL	40 HP	0.25 HR		\$2.14	\$3.58	\$0.27	\$0.75	\$6.74
DITCH MAINTENANCE		0.50 HR		\$4.28				\$4.28
IRRIGATE (1X)		0.75 HR		\$5.63				\$5.63
SUBTOTAL		1.87 HR		\$15.20	\$8.88	\$0.67	\$1.87	\$26.62
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.16 HR		\$1.33				\$1.33
EMPLOYEE BENEFITS				\$2.74				\$2.74
INSURANCE			\$0.30					\$0.30
SUPERVISION AND MANAGEMENT				\$10.48				\$10.48
SUBTOTAL		0.16 HR	\$0.30	\$14.54				\$14.85
<b>TOTAL OPERATING EXPENSES</b>		2.03 HR	\$108.30	\$29.75	\$8.88	\$0.67	\$1.87	\$149.47

TABLE 7. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Actual 2014

Harvesting dates: May 15 - September 15										
ITEM	PRICE	YIELD								TOTAL
<b>GROSS RETURNS</b>										
ALFALFA HAY	\$245.00	6.20 TONS (STACKED)								\$1,519.00
GRAZING	\$15.00	1.00 ACRE								\$15.00
<b>TOTAL</b>									<b>\$1,534.00</b>	
<b>PURCHASED INPUTS</b>										
	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL	
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		10.00 YEARS						\$4.00	\$4.00	
: Interest								\$14.95	\$14.95	
BALING WIRE	\$1.32	53.13 LBS	\$70.14						\$70.14	
CANAL WATER		16.00 AC. IN.	\$5.00						\$5.00	
PUMP WATER*		8.00 AC. IN.								
<b>SUBTOTAL</b>			<b>\$75.14</b>					<b>\$23.77</b>	<b>\$98.91</b>	
<b>PREHARVEST OPERATIONS</b>										
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL		
DITCH MAINTENANCE IRRIGATE (8X)		0.50 HR		\$4.28				\$4.28		
		4.00 HR		\$30.00	\$6.64	\$0.00	\$14.41	\$51.05		
<b>SUBTOTAL</b>		<b>4.50 HR</b>		<b>\$34.28</b>	<b>\$6.64</b>	<b>\$0.00</b>	<b>\$14.41</b>	<b>\$55.33</b>		
<b>HARVEST OPERATIONS</b>										
MOWER (3X)	40 HP	1.11 HR		\$9.49	\$15.90	\$1.60	\$5.44	\$32.43		
RAKE (3X)	40 HP	0.36 HR		\$3.08	\$5.16	\$0.54	\$3.59	\$12.37		
BALER (3X)	40 HP	0.63 HR		\$5.39	\$9.02	\$0.78	\$8.12	\$23.31		
HAUL (3X)	1 TON TRUCK	4.50 HR		\$38.48	\$109.49	\$37.46	\$56.79	\$242.21		
<b>SUBTOTAL</b>		<b>6.60 HR</b>		<b>\$56.43</b>	<b>\$139.57</b>	<b>\$40.38</b>	<b>\$73.93</b>	<b>\$310.31</b>		
<b>OVERHEAD EXPENSES</b>										
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				\$114.68				\$114.68		
OTHER EXPENSES			\$239.61					\$239.61		
<b>SUBTOTAL</b>		<b>1.65 HR</b>	<b>\$241.42</b>	<b>\$145.11</b>			<b>\$0.21</b>	<b>\$386.75</b>		
<b>TOTAL OPERATING EXPENSES</b>		<b>12.75 HR</b>	<b>\$316.56</b>	<b>\$235.82</b>	<b>\$146.21</b>	<b>\$40.38</b>	<b>\$112.32</b>	<b>\$851.29</b>		
<b>NET OPERATING PROFIT</b>									<b>\$682.71</b>	
INTEREST ON OPERATING CAPITAL		( \$54.22 @	5.50%	)					\$2.98	
INTEREST ON EQUIPMENT INVESTMENT									\$2.15	
<b>RETURN TO LAND AND RISK</b>									<b>\$677.57</b>	

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

**BUDGET SUMMARY**

GROSS RETURN		\$1,534.00	
VARIABLE OPERATING EXPENSES	\$503.15		
RETURN OVER VARIABLE EXPENSES	\$1,030.85	(GROSS MARGIN)	
FIXED EXPENSES	\$112.32		
NET FARM INCOME	\$918.53	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$235.82		
NET OPERATING PROFIT	\$682.71	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$5.13		
RETURN TO LAND AND RISK		\$677.57	

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, Actual 2014

Harvesting dates: July 20 - September 15									
ITEM	PRICE	YIELD							TOTAL
<b>GROSS RETURNS</b>									
HAY	\$220.00	1.50 TONS (STACKED)							\$330.00
GRAZING	\$13.00	1.00 ACRE							\$13.00
<b>TOTAL</b>								<b>\$343.00</b>	
<b>PURCHASED INPUTS</b>									
	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
LIVESTOCK FAC & EQUIP								\$4.00	\$4.00
BALING WIRE	\$1.32	13 LBS	\$16.97						\$16.97
CANAL WATER		12 AC. IN.	\$5.00						\$5.00
PUMP WATER*		6 AC. IN.							
<b>SUBTOTAL</b>			<b>\$21.97</b>					<b>\$4.00</b>	<b>\$25.97</b>
<b>PREHARVEST OPERATIONS</b>									
	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	
<b>SUBTOTAL</b>		<b>3.00 HR</b>		<b>\$25.65</b>	<b>\$4.98</b>	<b>\$0.00</b>	<b>\$10.81</b>	<b>\$41.44</b>	
<b>HARVEST OPERATIONS</b>									
MOWER (2X)	40 HP	0.74 HR		\$6.33	\$10.60	\$1.07	\$3.63	\$21.62	
RAKE (2X)	40 HP	0.24 HR		\$2.05	\$3.44	\$0.36	\$2.39	\$8.25	
BALER, 1-TON (2X)	40 HP	0.42 HR		\$3.59	\$6.02	\$0.52	\$5.41	\$15.54	
HAUL (2X)	TRUCK	1.60 HR		\$13.68	\$38.93	\$13.32	\$20.19	\$86.12	
<b>SUBTOTAL</b>		<b>3.00 HR</b>	<b>\$0.00</b>	<b>\$25.65</b>	<b>\$58.98</b>	<b>\$15.27</b>	<b>\$31.62</b>	<b>\$131.52</b>	
<b>OVERHEAD EXPENSES</b>									
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				\$25.51				\$25.51	
OTHER EXPENSES			\$239.61					\$239.61	
<b>SUBTOTAL</b>		<b>0.75 HR</b>	<b>\$240.64</b>	<b>\$41.16</b>			<b>\$0.21</b>	<b>\$282.00</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>3.75 HR</b>	<b>\$262.60</b>	<b>\$92.46</b>	<b>\$63.96</b>	<b>\$15.27</b>	<b>\$46.64</b>	<b>\$480.93</b>	
<b>NET OPERATING PROFIT</b>								<b>(\$137.93)</b>	
INTEREST ON OPERATING CAPITAL		(	\$18.42	@	5.50%	)		\$1.01	
INTEREST ON EQUIPMENT INVESTMENT								\$21.11	
<b>RETURN TO LAND AND RISK</b>								<b>(\$160.05)</b>	

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

**BUDGET SUMMARY**

GROSS RETURN		\$343.00	
VARIABLE OPERATING EXPENSES	\$341.84		
RETURN OVER VARIABLE EXPENSES		\$1.16	(GROSS MARGIN)
FIXED EXPENSES	\$46.64		
NET FARM INCOME		(\$45.48)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$92.46		
NET OPERATING PROFIT		(\$137.93)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$22.12		
RETURN TO LAND AND RISK		(\$160.05)	

TABLE 9. Summary of per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Actual 2014

	ALFALFA ESTABLISHMENT	ALFALFA HAY	NATIVE GRASS HAY
		TONS	TONS
PRIMARY YIELD		6.20	1.50
PRIMARY PRICE		\$245.00	\$220.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00
SECOND INCOME		\$15.00	\$13.00
GROSS RETURN		\$1,534.00	\$343.00
CASH OPERATING EXPENSES			
SEED	\$108.00		
FERTILIZER			
CHEMICALS			
CROP INSURANCE			
OTHER PURCHASED INPUTS		\$70.14	\$16.97
CANAL WATER		\$5.00	\$5.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$8.88	\$139.57	\$58.98
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	\$241.42	\$240.64
TOTAL CASH EXPENSES	\$117.85	\$503.36	\$342.05
RETURN OVER CASH EXPENSES	(\$117.85)	\$1,030.64	\$0.95
FIXED EXPENSES	\$1.87	\$112.11	\$46.43
TOTAL EXPENSES	\$119.72	\$615.47	\$388.48
NET FARM INCOME	(\$119.72)	\$918.53	(\$45.48)
LABOR AND MANAGEMENT COSTS	\$29.75	\$235.82	\$92.46
NET OPERATING PROFIT	(\$149.47)	\$682.71	(\$137.93)
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		\$2.98	\$1.01
INTEREST ON EQUIPMENT INVESTMENT		\$2.15	\$21.11
TOTAL CAPITAL COSTS	\$0.00	\$5.13	\$22.12
RETURN TO LAND AND RISK	(\$149.47)	\$677.57	(\$160.05)

TABLE 10. Whole farm summary, Union County,  
Actual 2014

GROSS RETURNS		
ALFALFA HAY	40 ACRES	
CROP		\$60,760
GRAZING		\$600
NATIVE GRASS HAY	40 ACRES	
CROP		\$13,200
GRAZING		\$520
GROSS RETURN		<u>\$75,080</u>
CASH OPERATING EXPENSES		
SEED		\$432
FERTILIZER		\$0
CHEMICALS		\$0
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$3,484
CANAL WATER		\$400
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$7,977
FUEL-IRRIGATION		\$465
REPAIRS		\$2,229
CUSTOM CHARGES		\$0
LAND TAXES		\$17
OTHER EXPENSES		\$19,284
TOTAL CASH EXPENSES		<u>\$34,288</u>
RETURN OVER CASH EXPENSES		\$40,792
FIXED EXPENSES		\$5,751
TOTAL EXPENSES		\$40,039
NET FARM INCOME		\$35,041
LABOR AND MANAGEMENT COSTS		\$13,250
NET OPERATING PROFIT		\$21,791
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$160
INTEREST ON EQUIPMENT INVESTMENT		\$930
TOTAL CAPITAL COSTS		<u>\$1,090</u>
RETURN TO LAND AND RISK		<u>\$20,701</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	\$20,221	39.62%
\$350 /ACRE	\$19,861	32.52%
\$500 /ACRE	\$19,501	27.58%

\* 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)