

TABLE 1. Acreage Summary, Union County,
Actual 2023

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 2023

Item			
Labor Wage Rate:			
Equipment operators	\$/hour		\$20.00
General & Irrigators	\$/hour		\$16.60
Purchased Inputs:			
Seed:			
Alfalfa	\$/pound		\$4.50
Natural gas	\$/MCF		\$2.71
Diesel fuel	\$/gallon		\$4.33
Gasoline	\$/gallon		\$2.99
Electricity	cents/KwHr		9.79
LP Gas	\$/gallon		\$2.45
Baling Wire	\$/pound		\$1.32
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		7.25%
Land Interest Rate	percent		9.15%
Equipment Interest Rate	percent		8.75%
Real Interest Rate	percent		4.25%
Land Taxes	\$27.00 /acre (full value)		\$0.20
Personal Property Tax Rate	-NR - R	\$/ \$1,000 (Assessed Value)	\$22.57 \$18.57
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,
Actual 2023

Item			
Electricity (Domestic & Shop)		\$128.00 per month	\$1,536
Telephone		\$102.40 per month	\$1,229
Accounting & Legal			\$576
Misc. Supplies & Hand Tools			\$947
Pickup and Auto			
miles	13,184	@ \$0.665 per mile	\$8,767
Insurance			
- general liability (non-employee)			\$1,229
- fire/theft			\$800
Property Taxes			
- other than land & machinery			\$6,010
Building repairs and maintenance			\$608
Dues, fees, publications			\$307
Farmstead Equipment			\$96
Total			\$22,105
Total per planted acre			\$276.32

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 2023
 Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$4.50	18 LBS	\$81.00					\$81.00
CANAL WATER		5 AC. IN.						
SUBTOTAL			\$81.00					\$81.00
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	40 HP	0.20 HR		\$4.00	\$3.24	\$0.20	\$0.56	\$8.00
DISC	40 HP	0.17 HR		\$3.40	\$2.75	\$0.17	\$0.48	\$6.80
DRILL	40 HP	0.25 HR		\$5.00	\$4.05	\$0.25	\$0.70	\$10.01
DITCH MAINTENANCE		0.50 HR		\$10.00				\$10.00
IRRIGATE (1X)		0.75 HR		\$12.45				\$12.45
SUBTOTAL		1.87 HR		\$34.85	\$10.04	\$0.63	\$1.75	\$47.26
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.16 HR		\$3.10				\$3.10
EMPLOYEE BENEFITS				\$6.27				\$6.27
INSURANCE			\$0.70					\$0.70
SUPERVISION AND MANAGEMENT				\$10.04				\$10.04
SUBTOTAL		0.16 HR	\$0.70	\$19.41				\$20.11
<u>TOTAL OPERATING EXPENSES</u>		2.03 HR	\$81.70	\$54.26	\$10.04	\$0.63	\$1.75	\$148.37

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 2023
Harvesting dates: May 15 - September 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$301.00	6.20 TONS (STACKED)						\$1,866.20
GRAZING	\$20.00	1.00 ACRE						\$20.00
TOTAL								\$1,886.20
PURCHASED INPUTS								
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		10.00 YEARS					\$4.00	\$4.00
: Interest							\$14.84	\$14.84
BALING WIRE	\$1.32	53.13 LBS	\$70.14				\$6.46	\$6.46
CANAL WATER		16.00 AC. IN.	\$5.00					\$70.14
PUMP WATER*		8.00 AC. IN.						\$5.00
SUBTOTAL			\$75.14				\$25.29	\$100.43
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DITCH MAINTENANCE		0.50 HR		\$10.00				\$10.00
IRRIGATE (8X)		4.00 HR		\$66.40	\$8.16	\$0.00	\$14.38	\$88.94
SUBTOTAL			4.50 HR	\$76.40	\$8.16	\$0.00	\$14.38	\$98.94
HARVEST OPERATIONS								
MOWER (3X)	40 HP	1.11 HR		\$22.20	\$17.98	\$1.53	\$5.22	\$46.93
RAKE (3X)	40 HP	0.36 HR		\$7.20	\$5.83	\$0.52	\$3.51	\$17.06
BALER (3X)	40 HP	0.63 HR		\$12.60	\$10.20	\$0.74	\$7.98	\$31.52
HAUL (3X)	1 TON TRUCK	4.50 HR		\$90.00	\$123.78	\$37.46	\$49.07	\$300.31
SUBTOTAL			6.60 HR	\$132.00	\$157.79	\$40.24	\$65.79	\$395.82
OVERHEAD EXPENSES								
DOWNTIME		1.65 HR		\$33.00				\$33.00
EMPLOYEE BENEFITS				\$37.51				\$37.51
INSURANCE			\$4.17					\$4.17
LAND TAXES							\$0.20	\$0.20
SUPERVISION AND MANAGEMENT				\$139.33				\$139.33
OTHER EXPENSES			\$276.32					\$276.32
SUBTOTAL			1.65 HR	\$280.49	\$209.85		\$0.20	\$490.53
TOTAL OPERATING EXPENSES			12.75 HR	\$355.62	\$418.25	\$165.95	\$40.24	\$1,085.72
NET OPERATING PROFIT								\$800.48
INTEREST ON OPERATING CAPITAL		(\$56.11 @ 7.25%)						\$4.07
INTEREST ON EQUIPMENT INVESTMENT								\$3.21
RETURN TO LAND AND RISK								\$793.20

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

BUDGET SUMMARY

GROSS RETURN	\$1,886.20	
VARIABLE OPERATING EXPENSES	\$561.82	
RETURN OVER VARIABLE EXPENSES	\$1,324.38	(GROSS MARGIN)
FIXED EXPENSES	\$105.66	
NET FARM INCOME	\$1,218.72	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$418.25	
NET OPERATING PROFIT	\$800.48	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$7.28	
RETURN TO LAND AND RISK	\$793.20	

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 2023
Harvesting dates: July 20 - September 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
HAY	\$245.00	1.50 TONS (STACKED)						\$367.50
GRAZING	\$20.00	1.00 ACRE						\$20.00
TOTAL								\$387.50
PURCHASED INPUTS								
	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.						
SUBTOTAL			\$21.97				\$4.00	\$25.97
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DITCH MAINTENANCE		0.50 HR		\$10.00				\$10.00
IRRIGATE (5X)		2.50 HR		\$50.00	\$6.12	\$0.00	\$10.78	\$66.91
SUBTOTAL		3.00 HR		\$60.00	\$6.12	\$0.00	\$10.78	\$76.91
HARVEST OPERATIONS								
MOWER (2X)	40 HP	0.74 HR		\$14.80	\$11.98	\$1.02	\$3.48	\$31.28
RAKE (2X)	40 HP	0.24 HR		\$4.80	\$3.89	\$0.35	\$2.34	\$11.38
BALER, 1-TON (2X)	40 HP	0.42 HR		\$8.40	\$6.80	\$0.49	\$5.32	\$21.01
HAUL (2X)	TRUCK	1.60 HR		\$32.00	\$44.01	\$13.32	\$17.45	\$106.78
SUBTOTAL		3.00 HR	\$0.00	\$60.00	\$66.68	\$15.18	\$28.59	\$170.45
OVERHEAD EXPENSES								
DOWNTIME		0.75 HR		\$15.00				\$15.00
EMPLOYEE BENEFITS				\$21.60				\$21.60
INSURANCE			\$2.40					\$2.40
LAND TAXES							\$0.20	\$0.20
SUPERVISION AND MANAGEMENT				\$28.63				\$28.63
OTHER EXPENSES			\$276.32					\$276.32
SUBTOTAL		0.75 HR	\$278.72	\$65.23			\$0.20	\$344.15
TOTAL OPERATING EXPENSES		3.75 HR	\$300.69	\$185.23	\$72.80	\$15.18	\$43.58	\$617.47
NET OPERATING PROFIT								(\$229.97)
INTEREST ON OPERATING CAPITAL		(\$19.34	@	7.25%)		\$1.40
INTEREST ON EQUIPMENT INVESTMENT								\$31.96
RETURN TO LAND AND RISK								(\$263.33)

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

BUDGET SUMMARY

GROSS RETURN		\$387.50	
VARIABLE OPERATING EXPENSES	\$388.67		
RETURN OVER VARIABLE EXPENSES		(\$1.17)	(GROSS MARGIN)
FIXED EXPENSES	\$43.58		
NET FARM INCOME		(\$44.74)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$185.23		
NET OPERATING PROFIT		(\$229.97)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$33.36		
RETURN TO LAND AND RISK		(\$263.33)	

TABLE 9. Summary of per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Actual 2023

	ALFALFA ESTABLISHMENT	ALFALFA HAY	NATIVE GRASS HAY
		TONS	TONS
PRIMARY YIELD		6.20	1.50
PRIMARY PRICE		\$301.00	\$245.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00
SECOND INCOME		\$20.00	\$20.00
GROSS RETURN		\$1,886.20	\$387.50
CASH OPERATING EXPENSES			
SEED	\$81.00		
FERTILIZER			
CHEMICALS			
CROP INSURANCE			
OTHER PURCHASED INPUTS		\$70.14	\$16.97
CANAL WATER		\$5.00	\$5.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$10.04	\$157.79	\$66.68
FUEL-IRRIGATION		\$8.16	\$6.12
REPAIRS	\$0.63	\$40.24	\$15.18
CUSTOM CHARGES			
LAND TAXES		\$0.20	\$0.20
OTHER EXPENSES	\$0.70	\$280.49	\$278.72
TOTAL CASH EXPENSES	\$92.37	\$562.02	\$388.87
RETURN OVER CASH EXPENSES	(\$92.37)	\$1,324.18	(\$1.37)
FIXED EXPENSES	\$1.75	\$105.46	\$43.38
TOTAL EXPENSES	\$94.11	\$667.48	\$432.24
NET FARM INCOME	(\$94.11)	\$1,218.72	(\$44.74)
LABOR AND MANAGEMENT COSTS	\$54.26	\$418.25	\$185.23
NET OPERATING PROFIT	(\$148.37)	\$800.48	(\$229.97)
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		\$4.07	\$1.40
INTEREST ON EQUIPMENT INVESTMENT		\$3.21	\$31.96
TOTAL CAPITAL COSTS	\$0.00	\$7.28	\$33.36
RETURN TO LAND AND RISK	(\$148.37)	\$793.20	(\$263.33)

TABLE 10. Whole farm summary, Union County,
Actual 2023

GROSS RETURNS		
ALFALFA HAY	40 ACRES	
CROP		\$74,648
GRAZING		\$800
NATIVE GRASS HAY	40 ACRES	
CROP		\$14,700
GRAZING		\$800
GROSS RETURN		<u>\$90,948</u>
CASH OPERATING EXPENSES		
SEED		\$324
FERTILIZER		\$0
CHEMICALS		\$0
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$3,484
CANAL WATER		\$400
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$9,019
FUEL-IRRIGATION		\$571
REPAIRS		\$2,219
CUSTOM CHARGES		\$0
LAND TAXES		\$16
OTHER EXPENSES		\$22,371
TOTAL CASH EXPENSES		<u>\$38,405</u>
RETURN OVER CASH EXPENSES		\$52,543
FIXED EXPENSES		\$5,367
TOTAL EXPENSES		\$43,772
NET FARM INCOME		\$47,176
LABOR AND MANAGEMENT COSTS		\$24,356
NET OPERATING PROFIT		\$22,820
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$219
INTEREST ON EQUIPMENT INVESTMENT		\$1,407
TOTAL CAPITAL COSTS		<u>\$1,626</u>
RETURN TO LAND AND RISK		<u>\$21,195</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	\$20,515	43.06%
\$350 /ACRE	\$20,005	35.11%
\$500 /ACRE	\$19,495	29.64%

* 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)