

TABLE 1. Acreage Summary, Union County,
Projected 2005.

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 2005.

Item			
Labor Wage Rate:			
Equipment operators		\$/hour	\$7.45
General & Irrigators		\$/hour	\$6.60
Purchased Inputs:			
Seed:			
Alfalfa		\$/pound	\$2.88
Natural gas		\$/MCF	\$3.28
Diesel fuel		\$/gallon	\$2.10
Gasoline		\$/gallon	\$2.00
Electricity		cents/KwHr	6.78
LP Gas		\$/gallon	\$1.65
Baling Wire		\$/pound	\$0.50
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	7.00%
Land Interest Rate		percent	7.00%
Equipment Interest Rate		percent	7.00%
Real Interest Rate		percent	3.00%
Land Taxes		\$27.00 /acre (full value)	\$0.30
Personal Property Tax Rate	-NR - R	\$/ \$1,000 (Assessed Value)	\$33.75 \$26.10
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 2005.

Item			
Electricity (Domestic & Shop)		\$215.00 per month	\$2,580
Telephone		\$115.00 per month	\$1,380
Accounting & Legal			\$1,525
Misc. Supplies & Hand Tools			\$1,430
Pickup and Auto			
miles	20,035	@ \$0.365 per mile	\$7,313
Insurance			
- general liability (non-employee)			\$1,710
- fire/theft			\$1,525
Property Taxes			
- other than land & machinery			\$6,010
Building repairs and maintenance			\$1,290
Dues, fees, publications			\$405
Farmstead Equipment			\$185
		Total	\$25,353
		Total per planted acre	\$316.91

TABLE 4. Pumping costs and data for irrigation wells, Dry Cimarron area, Union County, Projected 2005.

INPUT DATA	
DEPTH CHARACTERISTICS:	
STATIC.....	50
DRAW DOWN.....	15
TOTAL HEAD.....	65
CASING.....	75
GALLONS PER MINUTE (GPM)	900
WORK HORSEPOWER	15
EFFICIENCY FACTOR:	
ELECTRICITY	0.540
NATURAL GAS	0.154
LP GAS	0.154
DIESEL	0.160
FUEL COST PER UNIT:	
ELECTRICITY	6.78 CENTS/KwHr
NATURAL GAS	\$3.28 \$/MCF
LP GAS	\$1.65 \$/GAL
DIESEL	\$2.10 \$/GAL
FUEL PUMPING COSTS	
ELECTRIC WELL:	
COST PER HOUR	\$1.41
COST PER ACRE INCH	\$0.71
NATURAL GAS WELL:	
COST PER HOUR	\$0.91
COST PER ACRE INCH	\$0.46
LP GAS WELL:	
COST PER HOUR	\$4.41
COST PER ACRE INCH	\$2.22
DIESEL WELL:	
COST PER HOUR	\$3.51
COST PER ACRE INCH	\$1.76

TABLE 5. Equipment summary for an 80 acre part-time flood-irrigated farm, Dry Cimarron area, Union County, Projected 2005.

EQUIPMENT		ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS				FIXED COSTS		
ITEM & SIZE	FUEL, OIL, LUBRICANT				REPAIR	FUEL, OIL PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HR	
TRACTOR	40 HP	142	1	\$7,609	\$1,119	\$154	\$7.85	\$1.08	\$359	\$101	\$3.23
MOWER		74	1	\$1,300		\$27		\$0.36	\$130	\$15	\$1.95
BALER	2 WIRE	42	1	\$1,600		\$6		\$0.15	\$385	\$43	\$10.20
RAKE		24	1	\$1,550		\$10		\$0.43	\$155	\$17	\$7.18
CHISEL (BORROWED)	7 PT	1	1	\$0		\$0		\$0.00	\$0	\$0	\$0.00
DISC (BORROWED)	12 FT	1	1	\$0		\$0		\$0.00	\$0	\$0	\$0.00
DRILL (BORROWED)	10 FT	1	1	\$0		\$0		\$0.00	\$0	\$0	\$0.00
TRUCK	2.5 TON	244	1	\$13,000	\$3,255	\$2,028	\$13.34	\$8.31	\$2,600	\$146	\$11.26
BALE LOADER		244	1	\$2,550		\$166		\$0.68	\$255	\$29	\$1.16
ELECTRIC WELL		282	1	\$11,500	\$398	\$0	\$1.41	\$0.00	\$920	\$129	\$3.73
				\$39,109	\$4,772	\$2,391			\$4,804	\$481	

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 2005.
 Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$2.88	18 LBS	\$51.84					\$51.84
CANAL WATER		5 AC. IN.						
SUBTOTAL			\$51.84					\$51.84
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	40 HP	0.20 HR		\$1.49	\$1.57	\$0.22	\$0.65	\$3.92
DISC	40 HP	0.17 HR		\$1.27	\$1.34	\$0.18	\$0.55	\$3.33
DRILL	40 HP	0.25 HR		\$1.86	\$1.96	\$0.27	\$0.81	\$4.90
DITCH MAINTENANCE		0.50 HR		\$3.73				\$3.73
IRRIGATE (1X)		0.75 HR		\$4.95				\$4.95
SUBTOTAL		1.87 HR		\$13.29	\$4.87	\$0.67	\$2.00	\$20.84
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.16 HR		\$1.15				\$1.15
EMPLOYEE BENEFITS				\$2.39				\$2.39
INSURANCE			\$0.27					\$0.27
SUPERVISION AND MANAGEMENT				\$6.15				\$6.15
SUBTOTAL		0.16 HR	\$0.27	\$9.70				\$9.96
TOTAL OPERATING EXPENSES		2.03 HR	\$52.11	\$22.99	\$4.87	\$0.67	\$2.00	\$82.64

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 2005.
Harvesting dates: May 15 - September 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALFA HAY	\$130.00	4.00 TONS (STACKED)	\$520.00
GRAZING	\$15.00	1.00 ACRE	\$15.00
TOTAL			\$535.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal		10.00 YEARS		\$4.00	\$4.00
: Interest				\$8.26	\$8.26
				\$3.42	\$3.42
BALING WIRE	\$0.50	34.28 LBS	\$17.14		\$17.14
CANAL WATER		16.00 AC. IN.	\$5.00		\$5.00
PUMP WATER*		8.00 AC. IN.			
SUBTOTAL			\$22.14	\$15.68	\$37.82

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DITCH MAINTENANCE		0.50 HR		\$3.73				\$3.73
IRRIGATE (8X)		4.00 HR		\$26.40	\$5.69	\$0.00	\$14.99	\$47.08
SUBTOTAL		4.50 HR		\$30.13	\$5.69	\$0.00	\$14.99	\$50.81

HARVEST OPERATIONS								
MOWER (3X)	40 HP	1.11 HR		\$8.27	\$8.72	\$1.60	\$5.76	\$24.35
RAKE (3X)	40 HP	0.36 HR		\$2.68	\$2.83	\$0.54	\$3.75	\$9.80
BALER (3X)	40 HP	0.63 HR		\$4.69	\$4.95	\$0.78	\$8.46	\$18.88
HAUL (3X)	1 TON TRUCK	4.50 HR		\$33.53	\$60.03	\$37.46	\$55.88	\$186.90
SUBTOTAL		6.60 HR		\$49.17	\$76.52	\$40.38	\$73.85	\$239.93

OVERHEAD EXPENSES								
DOWNTIME		1.65 HR		\$12.29				\$12.29
EMPLOYEE BENEFITS				\$14.27				\$14.27
INSURANCE			\$1.59					\$1.59
LAND TAXES						\$0.30		\$0.30
SUPERVISION AND MANAGEMENT				\$44.75				\$44.75
OTHER EXPENSES			\$316.91					\$316.91
SUBTOTAL		1.65 HR	\$318.50	\$71.32		\$0.30		\$390.11

TOTAL OPERATING EXPENSES 12.75 HR \$340.64 \$150.61 \$82.21 \$40.38 \$104.82 \$718.67

NET OPERATING PROFIT (\$183.67)

INTEREST ON OPERATING CAPITAL (\$22.23 @ 7.00%) \$1.56
INTEREST ON EQUIPMENT INVESTMENT \$2.74

RETURN TO LAND AND RISK (\$187.96)

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

BUDGET SUMMARY

GROSS RETURN		\$535.00	
VARIABLE OPERATING EXPENSES	\$463.23		
RETURN OVER VARIABLE EXPENSES		\$71.77	(GROSS MARGIN)
FIXED EXPENSES	\$104.82		
NET FARM INCOME		(\$33.06)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$150.61		
NET OPERATING PROFIT		(\$183.67)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$4.29		
RETURN TO LAND AND RISK		(\$187.96)	

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 2005.
 Harvesting dates: July 20 - September 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
HAY	\$115.00	1.50 TONS (STACKED)						\$172.50	
GRAZING	\$13.00	1.00 ACRE						\$13.00	
TOTAL							\$185.50		
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
LIVESTOCK FAC & EQUIP							\$4.00	\$4.00	
BALING WIRE	\$0.50	13 LBS	\$6.43					\$6.43	
CANAL WATER		12 AC. IN.	\$5.00					\$5.00	
PUMP WATER*		6 AC. IN.							
SUBTOTAL			\$11.43				\$4.00	\$15.43	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DITCH MAINTENANCE		0.50 HR		\$3.73				\$3.73	
IRRIGATE (5X)		2.50 HR		\$18.63	\$4.27	\$0.00	\$11.24	\$34.14	
SUBTOTAL	3.00 HR			\$22.35	\$4.27	\$0.00	\$11.24	\$37.86	
HARVEST OPERATIONS									
MOWER (2X)	40 HP	0.74 HR		\$5.51	\$5.81	\$1.07	\$3.84	\$16.23	
RAKE (2X)	40 HP	0.24 HR		\$1.79	\$1.88	\$0.36	\$2.50	\$6.54	
BALER, 1-TON (2X)	40 HP	0.42 HR		\$3.13	\$3.30	\$0.52	\$5.64	\$12.59	
HAUL (2X)	TRUCK	1.60 HR		\$11.92	\$21.34	\$13.32	\$19.87	\$66.45	
SUBTOTAL	3.00 HR		\$0.00	\$22.35	\$32.34	\$15.27	\$31.85	\$101.81	
OVERHEAD EXPENSES									
DOWNTIME		0.75 HR		\$5.59				\$5.59	
EMPLOYEE BENEFITS				\$8.05				\$8.05	
INSURANCE			\$0.89					\$0.89	
LAND TAXES							\$0.30	\$0.30	
SUPERVISION AND MANAGEMENT				\$14.49				\$14.49	
OTHER EXPENSES			\$316.91					\$316.91	
SUBTOTAL	0.75 HR		\$317.80	\$28.12				\$0.30	\$346.23
TOTAL OPERATING EXPENSES	3.75 HR		\$329.23	\$72.82	\$36.61	\$15.27	\$47.39	\$501.32	
NET OPERATING PROFIT								(\$315.82)	
INTEREST ON OPERATING CAPITAL			(\$10.75 @	7.00%)			\$0.75	
INTEREST ON EQUIPMENT INVESTMENT								\$26.63	
RETURN TO LAND AND RISK								(\$343.21)	

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

BUDGET SUMMARY

GROSS RETURN		\$185.50	
VARIABLE OPERATING EXPENSES	\$381.11		
RETURN OVER VARIABLE EXPENSES		(\$195.61)	(GROSS MARGIN)
FIXED EXPENSES	\$47.39		
NET FARM INCOME		(\$243.00)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$72.82		
NET OPERATING PROFIT		(\$315.82)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$27.39		
RETURN TO LAND AND RISK		(\$343.21)	

TABLE 9. Summary of per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County, Projected 2005.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	NATIVE GRASS HAY
		TONS	TONS
PRIMARY YIELD		4.00	1.50
PRIMARY PRICE		\$130.00	\$115.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00
SECOND INCOME		\$15.00	\$13.00
GROSS RETURN		\$535.00	\$185.50
CASH OPERATING EXPENSES			
SEED	\$51.84		
FERTILIZER			
CHEMICALS			
CROP INSURANCE			
OTHER PURCHASED INPUTS		\$17.14	\$6.43
CANAL WATER		\$5.00	\$5.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$4.87	\$76.52	\$32.34
FUEL-IRRIGATION		\$5.69	\$4.27
REPAIRS	\$0.67	\$40.38	\$15.27
CUSTOM CHARGES			
LAND TAXES		\$0.30	\$0.30
OTHER EXPENSES	\$0.27	\$318.50	\$317.80
TOTAL CASH EXPENSES	\$57.64	\$463.54	\$381.41
RETURN OVER CASH EXPENSES	(\$57.64)	\$71.46	(\$195.91)
FIXED EXPENSES	\$2.00	\$104.52	\$47.09
TOTAL EXPENSES	\$59.65	\$568.06	\$428.50
NET FARM INCOME	(\$59.65)	(\$33.06)	(\$243.00)
LABOR AND MANAGEMENT COSTS	\$22.99	\$150.61	\$72.82
NET OPERATING PROFIT	(\$82.64)	(\$183.67)	(\$315.82)
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		\$1.56	\$0.75
INTEREST ON EQUIPMENT INVESTMENT		\$2.74	\$26.63
TOTAL CAPITAL COSTS	\$0.00	\$4.29	\$27.39
RETURN TO LAND AND RISK	(\$82.64)	(\$187.96)	(\$343.21)

TABLE 10. Whole farm summary, Union County,
Projected 2005.

GROSS RETURNS		
ALFALFA HAY	40 ACRES	
CROP		\$20,800
GRAZING		\$600
NATIVE GRASS HAY	40 ACRES	
CROP		\$6,900
GRAZING		\$520
GROSS RETURN		<u>\$28,820</u>
CASH OPERATING EXPENSES		
SEED		\$207
FERTILIZER		\$0
CHEMICALS		\$0
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$943
CANAL WATER		\$400
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$4,374
FUEL-IRRIGATION		\$398
REPAIRS		\$2,229
CUSTOM CHARGES		\$0
LAND TAXES		\$24
OTHER EXPENSES		\$25,453
TOTAL CASH EXPENSES		<u>\$34,028</u>
RETURN OVER CASH EXPENSES		(\$5,208)
FIXED EXPENSES		\$5,742
TOTAL EXPENSES		\$39,770
NET FARM INCOME		(\$10,950)
LABOR AND MANAGEMENT COSTS		\$9,029
NET OPERATING PROFIT		(\$19,979)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$92
INTEREST ON EQUIPMENT INVESTMENT		\$1,175
TOTAL CAPITAL COSTS		<u>\$1,267</u>
RETURN TO LAND AND RISK		<u>(\$21,247)</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	(\$21,727)	-36.25%
\$350 /ACRE	(\$22,087)	-29.77%
\$500 /ACRE	(\$22,447)	-25.26%

* 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)