

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... DRY CIMARRON AREA, UNION COUN Projected 2008.
FARM SIZE..... 80.00 ACRES
IRRIGATION TYPE..... FLOOD
NUMBER OF CROPS..... 2

VERSION 1.0

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* YOU MAY ENTER DATA IN ANY INPUT TABLE WITH
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BEFORE YOU PRINT

TABLE 1. Acreage Summary, Union County,
Projected 2008.

| | | | |
|------------------------------------|---------------------------------|-------------------|-----------------|
| 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 2008.

| Item | | | |
|---------------------------------|------------|------------------------------|--------------------|
| Labor Wage Rate: | | | |
| Equipment operators | | \$/hour | \$7.45 |
| General & Irrigators | | \$/hour | \$6.60 |
| Purchased Inputs: | | | |
| Seed: | | | |
| Alfalfa | | \$/pound | \$3.45 |
| Natural gas | | \$/MCF | \$3.25 |
| Diesel fuel | | \$/gallon | \$3.05 |
| Gasoline | | \$/gallon | \$2.80 |
| Electricity | | cents/KwHr | 7.11 |
| LP Gas | | \$/gallon | \$2.60 |
| Baling Wire | | \$/pound | \$0.55 |
| 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 | 7.75% |
| Land Interest Rate | | percent | 7.75% |
| Equipment Interest Rate | | percent | 7.75% |
| Real Interest Rate | | percent | 3.00% |
| Land Taxes | | \$27.00 /acre (full value) | \$0.28 |
| Personal Property Tax Rate | -NR - R | \$/ \$1,000 (Assessed Value) | \$30.72 \$28.14 |
| 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 2008.

| Item | | | |
|------------------------------------|--------|------------------------|----------|
| Electricity (Domestic & Shop) | | \$112.00 per month | \$1,344 |
| Telephone | | \$89.60 per month | \$1,075 |
| Accounting & Legal | | | \$504 |
| Misc. Supplies & Hand Tools | | | \$829 |
| Pickup and Auto | | | |
| miles | 11,536 | @ \$0.415 per mile | \$4,787 |
| Insurance | | | |
| - general liability (non-employee) | | | \$1,075 |
| - fire/theft | | | \$700 |
| Property Taxes | | | |
| - other than land & machinery | | | \$6,010 |
| Building repairs and maintenance | | | \$532 |
| Dues, fees, publications | | | \$269 |
| Farmstead Equipment | | | \$84 |
| | | Total | \$17,209 |
| | | Total per planted acre | \$215.12 |

TABLE 4 Pumping costs and data for irrigation wells, Dry Cimarron area, Union County
Projected 2008

| INPUT DATA | |
|--------------------------|----------------|
| DEPTH CHARACTERISTICS | |
| STATIC | 50 |
| DRAW/DOWN | 15 |
| TOTAL HEAD | 65 |
| CAVING | 75 |
| GALLONS PER MINUTE (GPM) | 900 |
| WORK HORSEPOWER | 15 |
| EFFICIENCY FACTOR: | |
| ELECTRICITY | 0.60 |
| NATURAL GAS | 0.154 |
| LP GAS | 0.154 |
| DIESEL | 0.160 |
| FUEL COST PER UNIT: | 7.11 CENTS/KWH |
| ELECTRICITY | |
| NATURAL GAS | \$3.25 BSMCF |
| LP GAS | \$2.60 SGAL |
| DIESEL | \$3.05 SGAL |
| FUEL PUMPING COSTS | |
| ELECTRIC WELL | |
| COST PER HOUR | \$1.48 |
| COST PER ACRE INCH | \$0.75 |
| NATURAL GAS WELL | |
| COST PER HOUR | \$0.90 |
| COST PER ACRE INCH | \$0.45 |
| LP GAS WELL | |
| COST PER HOUR | \$0.94 |
| COST PER ACRE INCH | \$0.49 |
| DIESEL WELL | |
| COST PER HOUR | \$0.95 |
| COST PER ACRE INCH | \$0.45 |

TABLE 5 Equipment summary for an 80 acre part-time flood-irrigated farm, Dry Cimarron area, Union County
Projected 2008

| EQUIPMENT ITEM & SIZE | ANNUAL HOURS OF USE | NUMBER | TOTAL VALUE | VARIABLE COSTS | | | | FIXED COSTS | | TOTAL PER HR | |
|--------------------------|---------------------------|--------|----------------|-----------------------|---------|--------------------|------------------|--------------|---------|-----------------|---------|
| | | | | FUEL OIL LUBRICANT | REPAIR | FUEL OIL PER HR | REPAIR PER HR | DEPRECIATION | TAXES | | |
| TRACTOR | 40 HP | 142 | 1 | \$8,415 | \$184 | \$154 | \$1.41 | \$1.08 | \$280 | \$92 | \$3.72 |
| MOWER | | 74 | 1 | \$1,300 | \$27 | \$27 | | \$0.36 | \$130 | \$13 | \$1.64 |
| BALER | 2 WIRE | 42 | 1 | \$1,800 | \$56 | \$56 | | \$0.15 | \$280 | \$39 | \$3.11 |
| RAGE | | 24 | 1 | \$1,550 | \$10 | \$0.43 | | \$0.00 | \$155 | \$16 | \$1.72 |
| CHESEL (BORROWED) | 2 PF | 1 | 1 | \$0 | \$0 | \$0.00 | | \$0.00 | \$0 | \$0.00 | |
| DISC (BORROWED) | 12 FT | 1 | 1 | \$0 | \$0 | \$0.00 | | \$0.00 | \$0 | \$0.00 | |
| DRILL (BORROWED) | 10 FT | 1 | 1 | \$0 | \$0 | \$0.00 | | \$0.00 | \$0 | \$0.00 | |
| TRUCK | 2.5 TON | 244 | 1 | \$13,000 | \$4.78 | \$2.028 | \$19.38 | \$6.31 | \$2,800 | \$133 | \$11.20 |
| BALE LOADER | | 244 | 1 | \$2,500 | \$165 | \$165 | | \$0.68 | \$250 | \$25 | \$1.15 |
| ELECTRIC WELL | | 282 | 1 | \$11,500 | \$417 | \$0 | \$1.46 | \$0.00 | \$920 | \$116 | \$1.69 |
| | | | | \$37,915 | \$6,770 | \$2,301 | | | \$4,800 | \$488 | |

| EQUIPMENT LIST | | | | | | | | | | | |
|-------------------|-----------|------------|------------|------------|-----------|-------------|-----------|-------------|--------------|---------|---------|
| ITEM | NEW VALUE | USED VALUE | YEARS LIFE | EQUIP CODE | MAX HOURS | FUEL UNITHR | LUBE COEF | ACCUM HOURS | INTEREST AGE | EXPENSE | |
| TRACTOR | 40 HP | 1795.00 | 6415.00 | 50.00 | 1.00 | 800.00 | 3.40 | 0.10 | 2137.20 | 15.00 | 698.53 |
| MOWER | | 2600.00 | 1300.00 | 20.00 | 6.00 | 300.00 | 0.00 | 0.00 | 1110.00 | 15.00 | 100.75 |
| BALER | 2 WIRE | 7700.00 | 1900.00 | 20.00 | 2.00 | 500.00 | 0.00 | 0.00 | 1780.00 | 18.00 | 298.38 |
| RAGE | | 3100.00 | 1500.00 | 20.00 | 6.00 | 500.00 | 0.00 | 0.00 | 380.00 | 15.00 | 120.13 |
| CHESEL (BORROWED) | 2 PF | 0.00 | 0.00 | 15.00 | 3.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 |
| DISC (BORROWED) | 12 FT | 0.00 | 0.00 | 15.00 | 3.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 |
| DRILL (BORROWED) | 10 FT | 0.00 | 0.00 | 15.00 | 3.00 | 300.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 |
| TRUCK | 2.5 TON | 26000.00 | 13000.00 | 10.00 | 5.00 | 800.00 | 0.05 | 0.05 | 2884.00 | 11.00 | 1007.50 |
| BALE LOADER | | 2500.00 | 2500.00 | 25.00 | 3.00 | 300.00 | 0.00 | 0.00 | 2600.00 | 15.00 | 193.63 |
| ELECTRIC WELL | | 23000.00 | 11500.00 | 25.00 | 0.00 | 8742.00 | 0.00 | 0.00 | 4224.27 | 15.00 | 891.25 |

USAGE LIST

| ALFALFA | ALFALFA | NATIVE GRASS | PER ACRE |
|--------------------------|---------|--------------|----------|
| EST | REV | INV | TOTALS |
| -----hours per acre----- | | | |
| 0.02 | 2.10 | 1.42 | 4.12 |
| 0.00 | 1.11 | 0.74 | 1.85 |
| 0.00 | 0.43 | 0.42 | 0.85 |
| 0.00 | 0.38 | 0.24 | 0.60 |
| 0.00 | 0.00 | 0.00 | 0.00 |
| 0.17 | 0.00 | 0.00 | 0.17 |
| 0.25 | 0.00 | 0.00 | 0.25 |
| 0.00 | 4.50 | 1.60 | 6.10 |
| 4.5 | 1.6 | 6.10 | |
| 0.00 | 4.02 | 3.02 | 7.04 |

INTEREST PROPORTION

| ALFALFA HAY | NATIVE GRASS HAY |
|-------------|------------------|
| 0.00 | 6.64 |
| 0.00 | 1.51 |
| 0.00 | 2.38 |
| 0.00 | 1.20 |
| 0.00 | 0.00 |
| 0.00 | 0.80 |
| 0.00 | 6.41 |
| 0.00 | 1.50 |
| 0.00 | 9.55 |
| 3.00 | 29.49 |

ALFALFA ESTABLISHMENT

| ACRES: | 4 | PUMP WATER: |
|-------------------|-------|------------------------|
| POWER | TIMES | ACCOMPLISHMENT |
| MACHINE | UNIT | OVER RATE TOTAL CUSTOM |
| CHESEL | 40HP | 1.00 0.20 0.20 |
| DISC | 40HP | 1.00 0.17 0.17 |
| DRILL | 40HP | 1.00 0.25 0.25 |
| DITCH MAINTENANCE | | |
| IRRIGATE (IX) | 1.00 | 0.50 0.00 |

ALFALFA HAY

| ACRES: | 40 | PUMP WATER: | 8.00 |
|-------------------|-------|------------------------|------|
| POWER | TIMES | ACCOMPLISHMENT | |
| MACHINE | UNIT | OVER RATE TOTAL CUSTOM | |
| DITCH MAINTENANCE | | | |
| IRRIGATE (IX) | 8.00 | 0.50 4.02 | |

NATIVE GRASS HAY

| ACRES: | 40 | PUMP WATER: | 6.00 |
|-------------------|-------|------------------------|------|
| POWER | TIMES | ACCOMPLISHMENT | |
| MACHINE | UNIT | OVER RATE TOTAL CUSTOM | |
| DITCH MAINTENANCE | | | |
| IRRIGATE (IX) | 5.00 | 0.50 3.02 | |

MOWER (IX)

| | | | | |
|------------|------------|------|------|------|
| BALER (IX) | 40HP | 3.00 | 0.37 | 1.11 |
| BALER (IX) | 40HP | 3.00 | 0.12 | 0.38 |
| BALER (IX) | 40HP | 3.00 | 0.21 | 0.63 |
| HALL (IX) | 1 TON TRUC | 3.00 | 1.50 | 4.50 |

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

| Hours of Use | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.00148 | 0.000048 | 0.000240 | 0.000000 |
| 50 | 0.000060 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.00148 | 0.000048 | 0.000240 | 0.000000 |
| 100 | 0.000060 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.00148 | 0.000048 | 0.000240 | 0.000000 |
| 200 | 0.000030 | 0.000030 | 0.000040 | 0.000040 | 0.000180 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 300 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 400 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 500 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 600 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 700 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 800 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 900 | 0.000030 | 0.000020 | 0.000020 | 0.000020 | 0.000080 | 0.000280 | 0.000110 | 0.000150 | 0.000380 |
| 1000 | 0.000040 | 0.000130 | 0.000170 | 0.000180 | 0.000280 | 0.000480 | 0.000230 | 0.000170 | 0.000620 |
| 1200 | 0.000040 | 0.000140 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 1400 | 0.000040 | 0.000150 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 1500 | 0.000150 | 0.000170 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 1600 | 0.000150 | 0.000190 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 1800 | 0.000075 | 0.000190 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 2000 | 0.000110 | 0.000260 | 0.000230 | 0.000230 | 0.000480 | 0.000480 | 0.000240 | 0.000130 | 0.000710 |
| 2500 | 0.000056 | | | | | | | | |
| 3000 | 0.000070 | | | | | | | | |
| 3500 | 0.000062 | | | | | | | | |
| 4000 | 0.000056 | | | | | | | | |
| 4500 | 0.000108 | | | | | | | | |
| 5000 | 0.000122 | | | | | | | | |
| 5500 | 0.000136 | | | | | | | | |
| 6000 | 0.000148 | | | | | | | | |
| 6500 | 0.000162 | | | | | | | | |
| 7000 | 0.000176 | | | | | | | | |
| 7500 | 0.000188 | | | | | | | | |
| 8000 | 0.000204 | | | | | | | | |

* Based on unpublished data of D. R. Hunt, Department of Agriculture Engineering, University of Illinois.

** Based on "Agricultural Machinery Data" in Agriculture Engineers Yearbook, 1953.

Codes

- 1 tractor
- 2 mowers, combines, forage harvesters, windrowers, pickups
- 3 rotary hoes, disks, moldboard plows, chisels, field cultivators
- 4 harrows, weepers, rollers, rakes, subsoilers, water wheelers
- 5 masts, rollers, cotton pickers, cotton strippers, corn pickers
- 6 balers, choppers, hay racks
- 7 mowers, mowers, mowers
- 8 masts, rollers, mowers
- 9 masts, rollers, mowers
- 10 masts, rollers, mowers
- 11 masts, rollers, mowers
- 12 masts, rollers, mowers
- 13 masts, rollers, mowers
- 14 masts, rollers, mowers
- 15 masts, rollers, mowers
- 16 masts, rollers, mowers
- 17 masts, rollers, mowers
- 18 masts, rollers, mowers
- 19 masts, rollers, mowers
- 20 masts, rollers, mowers

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 2008.
 Planting dates: August 15 - September 15

| ITEM | PRICE | QUANTITY | PURCHASED INPUTS | | | | | TOTAL |
|---------------------------------|------------|---------------------|------------------|---------|-------------|---------|------------|---------|
| PURCHASED INPUTS | | | | | | | | |
| SEED | \$3.45 | 18 LBS | | \$62.10 | | | | \$62.10 |
| CANAL WATER | | 5 AC. IN. | | | | | | |
| SUBTOTAL | | | | \$62.10 | | | | \$62.10 |
| PREHARVEST OPERATIONS | | | | | | | | |
| | POWER UNIT | ACCOMPLISHMENT RATE | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| CHISEL | 40 HP | 0.20 HR | | \$1.49 | \$2.28 | \$0.22 | \$0.63 | \$4.62 |
| DISC | 40 HP | 0.17 HR | | \$1.27 | \$1.94 | \$0.18 | \$0.54 | \$3.93 |
| DRILL | 40 HP | 0.25 HR | | \$1.86 | \$2.85 | \$0.27 | \$0.79 | \$5.78 |
| DITCH MAINTENANCE | | 0.50 HR | | \$3.73 | | | | \$3.73 |
| IRRIGATE (1X) | | 0.75 HR | | \$4.95 | | | | \$4.95 |
| SUBTOTAL | | 1.87 HR | | \$13.29 | \$7.07 | \$0.67 | \$1.96 | \$23.00 |
| OVERHEAD EXPENSES | | | | | | | | |
| DOWNTIME | | 0.16 HR | | \$1.15 | | | | \$1.15 |
| EMPLOYEE BENEFITS | | | | \$2.39 | | | | \$2.39 |
| INSURANCE | | | \$0.27 | | | | | \$0.27 |
| SUPERVISION AND MANAGEMENT | | | | \$7.02 | | | | \$7.02 |
| SUBTOTAL | | 0.16 HR | \$0.27 | \$10.56 | | | | \$10.83 |
| TOTAL OPERATING EXPENSES | | 2.03 HR | \$62.37 | \$23.86 | \$7.07 | \$0.67 | \$1.96 | \$95.93 |

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 2008.

Harvesting dates: May 15 - September 15

| ITEM | PRICE | YIELD | | | | | | TOTAL |
|---|-------------|---------------------|------------------|-----------------|-----------------|----------------|------------------|-----------------|
| GROSS RETURNS | | | | | | | | |
| ALFALF FA HAY | \$140.00 | 4.00 TONS (STACKED) | | | | | | \$560.00 |
| GRAZING | \$15.00 | 1.00 ACRE | | | | | | \$15.00 |
| TOTAL | | | | | | | \$575.00 | |
| PURCHASED INPUTS | | | | | | | | |
| PURCHASED INPUTS | PRICE | QUANTITY | PURCHASED INPUTS | | | | FIXED COST | TOTAL |
| LIVESTOCK FAC & EQUIP ESTABLISHMENT: Principal | | 10.00 YEARS | | | | | \$4.00 | \$4.00 |
| Interest | | | | | | | \$9.59 | \$9.59 |
| BALING WIRE | \$0.55 | 34.28 LBS | \$18.85 | | | | \$4.45 | \$4.45 |
| CANAL WATER | | 16.00 AC. IN. | \$5.00 | | | | | \$18.85 |
| PUMP WATER* | | 8.00 AC. IN. | | | | | | \$5.00 |
| SUBTOTAL | | | \$23.85 | | | | \$18.04 | \$41.90 |
| 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 | \$5.96 | \$0.00 | \$14.82 | \$47.19 |
| SUBTOTAL | | 4.50 HR | | \$30.13 | \$5.96 | \$0.00 | \$14.82 | \$50.91 |
| HARVEST OPERATIONS | | | | | | | | |
| MOWER (3X) | 40 HP | 1.11 HR | | \$8.27 | \$12.66 | \$1.60 | \$5.67 | \$28.20 |
| RAKE (3X) | 40 HP | 0.36 HR | | \$2.68 | \$4.11 | \$0.54 | \$3.70 | \$11.04 |
| BALER (3X) | 40 HP | 0.63 HR | | \$4.69 | \$7.19 | \$0.78 | \$8.36 | \$21.02 |
| HAUL (3X) | 1 TON TRUCK | 4.50 HR | | \$33.53 | \$87.19 | \$37.46 | \$55.59 | \$213.76 |
| SUBTOTAL | | 6.60 HR | | \$49.17 | \$111.14 | \$40.38 | \$73.32 | \$274.02 |
| OVERHEAD EXPENSES | | | | | | | | |
| DOWNTIME | | 1.65 HR | | \$12.29 | | | | \$12.29 |
| EMPLOYEE BENEFITS | | | | \$14.27 | | | | \$14.27 |
| INSURANCE | | | \$1.59 | | | | | \$1.59 |
| LAND TAXES | | | | | | | \$0.28 | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | \$47.55 | | | | \$47.55 |
| OTHER EXPENSES | | | \$215.12 | | | | | \$215.12 |
| SUBTOTAL | | 1.65 HR | \$216.70 | \$74.12 | | | \$0.28 | \$291.10 |
| TOTAL OPERATING EXPENSES | | 12.75 HR | \$240.56 | \$153.41 | \$117.10 | \$40.38 | \$106.47 | \$657.92 |
| NET OPERATING PROFIT | | | | | | | (\$82.92) | |
| INTEREST ON OPERATING CAPITAL (\$26.04 @ 7.75%) | | | | | | | \$2.02 | |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | \$3.03 | |
| RETURN TO LAND AND RISK | | | | | | | (\$87.97) | |

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

BUDGET SUMMARY

| | | | |
|-------------------------------|----------|-----------|---|
| GROSS RETURN | | \$575.00 | |
| VARIABLE OPERATING EXPENSES | \$398.04 | | |
| RETURN OVER VARIABLE EXPENSES | | \$176.96 | (GROSS MARGIN) |
| FIXED EXPENSES | \$106.47 | | |
| NET FARM INCOME | | \$70.49 | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$153.41 | | |
| NET OPERATING PROFIT | | (\$82.92) | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$5.05 | | |
| RETURN TO LAND AND RISK | | (\$87.97) | |

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 2008.
Harvesting dates: July 20 - September 15

| ITEM | PRICE | YIELD | | | | | | TOTAL |
|----------------------------------|------------|---------------------|------------------|---------|-------------|---------|------------|-------------------|
| GROSS RETURNS | | | | | | | | |
| HAY | \$125.00 | 1.50 TONS (STACKED) | | | | | | \$187.50 |
| GRAZING | \$13.00 | 1.00 ACRE | | | | | | \$13.00 |
| TOTAL | | | | | | | | \$200.50 |
| PURCHASED INPUTS | | | | | | | | |
| PURCHASED INPUTS | PRICE | QUANTITY | PURCHASED INPUTS | | | | FIXED COST | TOTAL |
| LIVESTOCK FAC & EQUIP | | | | | | | \$4.00 | \$4.00 |
| BALING WIRE | \$0.55 | 13 LBS | \$7.07 | | | | | \$7.07 |
| CANAL WATER | | 12 AC. IN. | \$5.00 | | | | | \$5.00 |
| PUMP WATER* | | 6 AC. IN. | | | | | | |
| SUBTOTAL | | | | | | | | \$16.07 |
| 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 | \$4.47 | \$0.00 | \$11.12 | \$34.21 |
| SUBTOTAL | | | | | | | | \$37.94 |
| HARVEST OPERATIONS | | | | | | | | |
| MOWER (2X) | 40 HP | 0.74 HR | | \$5.51 | \$8.44 | \$1.07 | \$3.78 | \$18.80 |
| RAKE (2X) | 40 HP | 0.24 HR | | \$1.79 | \$2.74 | \$0.36 | \$2.47 | \$7.36 |
| BALER, 1-TON (2X) | 40 HP | 0.42 HR | | \$3.13 | \$4.79 | \$0.52 | \$5.58 | \$14.01 |
| HAUL (2X) | TRUCK | 1.60 HR | | \$11.92 | \$31.00 | \$13.32 | \$19.77 | \$76.01 |
| SUBTOTAL | | | | | | | | \$116.18 |
| OVERHEAD EXPENSES | | | | | | | | |
| DOWNTIME | | 0.75 HR | | \$5.59 | | | | \$5.59 |
| EMPLOYEE BENEFITS | | | | \$8.05 | | | | \$8.05 |
| INSURANCE | | | \$0.89 | | | | | \$0.89 |
| LAND TAXES | | | | | | | \$0.28 | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | \$15.54 | | | | \$15.54 |
| OTHER EXPENSES | | | \$215.12 | | | | | \$215.12 |
| SUBTOTAL | | | | | | | | \$245.46 |
| TOTAL OPERATING EXPENSES | | | | | | | | \$415.64 |
| NET OPERATING PROFIT | | | | | | | | (\$215.14) |
| INTEREST ON OPERATING CAPITAL | | (\$12.34 @ 7.75%) | | | | | | \$0.96 |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | \$29.49 |
| RETURN TO LAND AND RISK | | | | | | | | (\$245.59) |

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

BUDGET SUMMARY

| | | | |
|-------------------------------|----------|------------|---|
| GROSS RETURN | | \$200.50 | |
| VARIABLE OPERATING EXPENSES | \$294.79 | | |
| RETURN OVER VARIABLE EXPENSES | | (\$94.29) | (GROSS MARGIN) |
| FIXED EXPENSES | \$46.98 | | |
| NET FARM INCOME | | (\$141.27) | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$73.87 | | |
| NET OPERATING PROFIT | | (\$215.14) | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$30.44 | | |
| RETURN TO LAND AND RISK | | (\$245.59) | |

TABLE 9. Summary of per acre costs and returns for an 80 acre part-time farm, Dry Cimarron area, Union County
Projected 2008.

| | ALFALFA ESTABLISHMENT | ALFALFA HAY | NATIVE GRASS HAY |
|----------------------------------|--------------------------|----------------|---------------------|
| | | TONS | TONS |
| PRIMARY YIELD | | 4.00 | 1.50 |
| PRIMARY PRICE | | \$140.00 | \$125.00 |
| GOVERNMENT PAYMENTS | | \$0.00 | \$0.00 |
| SECOND INCOME | | \$15.00 | \$13.00 |
| GROSS RETURN | | \$575.00 | \$200.50 |
| CASH OPERATING EXPENSES | | | |
| SEED | \$62.10 | | |
| FERTILIZER | | | |
| CHEMICALS | | | |
| CROP INSURANCE | | | |
| OTHER PURCHASED INPUTS | | \$18.85 | \$7.07 |
| CANAL WATER | | \$5.00 | \$5.00 |
| FUEL, OIL & LUBRICANTS-EQUIPMENT | \$7.07 | \$111.14 | \$46.97 |
| FUEL-IRRIGATION | | \$5.96 | \$4.47 |
| REPAIRS | \$0.67 | \$40.38 | \$15.27 |
| CUSTOM CHARGES | | | |
| LAND TAXES | | \$0.28 | \$0.28 |
| OTHER EXPENSES | \$0.27 | \$216.70 | \$216.01 |
| TOTAL CASH EXPENSES | \$70.11 | \$398.32 | \$295.07 |
| RETURN OVER CASH EXPENSES | (\$70.11) | \$176.68 | (\$94.57) |
| FIXED EXPENSES | \$1.96 | \$106.19 | \$46.71 |
| TOTAL EXPENSES | \$72.07 | \$504.51 | \$341.77 |
| NET FARM INCOME | (\$72.07) | \$70.49 | (\$141.27) |
| LABOR AND MANAGEMENT COSTS | \$23.86 | \$153.41 | \$73.87 |
| NET OPERATING PROFIT | (\$95.93) | (\$82.92) | (\$215.14) |
| CAPITAL COSTS | | | |
| INTEREST ON OPERATING CAPITAL | | \$2.02 | \$0.96 |
| INTEREST ON EQUIPMENT INVESTMENT | | \$3.03 | \$29.49 |
| TOTAL CAPITAL COSTS | \$0.00 | \$5.05 | \$30.44 |
| RETURN TO LAND AND RISK | (\$95.93) | (\$87.97) | (\$245.59) |

TABLE 10. Whole farm summary, Union County,
Projected 2008.

| | | |
|----------------------------------|----------|-------------------|
| GROSS RETURNS | | |
| ALFALFA HAY | 40 ACRES | |
| CROP | | \$22,400 |
| GRAZING | | \$600 |
| NATIVE GRASS HAY | 40 ACRES | |
| CROP | | \$7,500 |
| GRAZING | | \$520 |
| GROSS RETURN | | <u>\$31,020</u> |
| CASH OPERATING EXPENSES | | |
| SEED | | \$248 |
| FERTILIZER | | \$0 |
| CHEMICALS | | \$0 |
| CROP INSURANCE | | \$0 |
| OTHER PURCHASED INPUTS | | \$1,037 |
| CANAL WATER | | \$400 |
| FUEL, OIL & LUBRICANTS-EQUIPMENT | | \$6,353 |
| FUEL-IRRIGATION | | \$417 |
| REPAIRS | | \$2,229 |
| CUSTOM CHARGES | | \$0 |
| LAND TAXES | | \$22 |
| OTHER EXPENSES | | \$17,310 |
| TOTAL CASH EXPENSES | | <u>\$28,016</u> |
| RETURN OVER CASH EXPENSES | | \$3,004 |
| FIXED EXPENSES | | \$5,740 |
| TOTAL EXPENSES | | \$33,756 |
| NET FARM INCOME | | (\$2,736) |
| LABOR AND MANAGEMENT COSTS | | \$9,187 |
| NET OPERATING PROFIT | | (\$11,923) |
| CAPITAL COSTS | | |
| INTEREST ON OPERATING CAPITAL | | \$119 |
| INTEREST ON EQUIPMENT INVESTMENT | | \$1,301 |
| TOTAL CAPITAL COSTS | | <u>\$1,420</u> |
| RETURN TO LAND AND RISK | | <u>(\$13,342)</u> |

| LAND VALUE | RETURN TO RISK* | RETURN ON INVESTMENT** |
|-------------|-----------------|------------------------|
| \$200 /ACRE | (\$13,822) | -22.11% |
| \$350 /ACRE | (\$14,182) | -18.09% |
| \$500 /ACRE | (\$14,542) | -15.30% |

* 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)