

TABLE 1. Basic cost information for Union County, 2003.

| Item | | | |
|---------------------------------|---------|------------------------------|---------|
| Labor Wage Rate: | | | |
| Equipment operators | | \$/hour | \$7.55 |
| General & Irrigators | | \$/hour | \$6.75 |
| Purchased Inputs: | | | |
| Fertilizer: | | | |
| Nitrogen (N) (N) | | \$/pound | \$0.36 |
| Phosphate (P205) | | \$/pound | \$0.33 |
| Potash (K2O) | | \$/pound | \$0.21 |
| Seed: | | | |
| Alfalfa | | \$/pound | \$3.00 |
| Wheat | | \$/pound | \$0.13 |
| Corn for Grain | | \$/bag | \$89.75 |
| Grain Sorghum | | \$/pound | \$1.20 |
| Haygrazer/Millet | | \$/pound | \$0.43 |
| Oats | | \$/pound | \$0.40 |
| Natural gas | | \$/MCF | \$3.28 |
| (service charge) | | \$/month | \$10.00 |
| Diesel fuel | | \$/gallon | \$1.30 |
| Gasoline | | \$/gallon | \$1.35 |
| Electricity | | cents/KwHr | 5.73 |
| LP Gas | | \$/gallon | \$1.21 |
| Baling Twine | | \$/roll | \$25.00 |
| Employee Liability Insurance | | \$/ \$1,000 wages | \$20.00 |
| Employee Benefits | | percent/w ages | 18.00% |
| Labor Downtime | | percent | 25.00% |
| Financial Rates: | | | |
| Operating Capital Interest Rate | | percent | 8.00% |
| Land Interest Rate | | percent | 7.00% |
| Equipment Interest Rate | | percent | 8.00% |
| Real Interest Rate | | percent | 4.00% |
| Land Taxes | \$27.00 | /acre | \$0.28 |
| Personal Property Tax Rate - NR | | \$/ \$1,000 (Assessed Value) | \$30.93 |
| - R | | | \$27.08 |
| Supervision Factors | | | |
| Field Crop-Irrigation | | \$/labor hour | \$1.00 |
| Field Crop-Equipment & General | | \$/labor hour | \$0.50 |
| Management Rate | | percent | 7.00% |

TABLE 1a. Overhead cost information for Union County, 2003.

| ITEM | | | | |
|------------------------------------|--------|---|--------------------|----------|
| Electricity (Domestic & Shop) | | | \$430.00 per month | \$5,160 |
| Telephone | | | \$210.00 per month | \$2,520 |
| Accounting & Legal | | | | \$3,970 |
| Misc. Supplies & Hand Tools | | | | \$4,030 |
| Pickup and Auto | | | | |
| miles | 31,000 | @ | \$0.365 per mile | \$11,315 |
| Insurance | | | | |
| - general liability (non-employee) | | | | \$2,570 |
| - fire/theft | | | | \$2,060 |
| Property Taxes | | | | |
| - non-planted land | | | | \$40 |
| - other than land & machinery | | | | \$985 |
| Building repairs and maintenance | | | | \$1,655 |
| Dues, fees, publications | | | | \$380 |
| Farmstead Equipment | | | | \$320 |
| Total | | | | \$35,005 |
| Total per planted acre | | | | \$32.17 |
| Total per dryland acre | | | | \$6.43 |

TABLE 2. Pumping costs and data for irrigation wells, Union County, 2003.

INPUT DATA

| | | | |
|-----------------------------|--------|------------------------|-----|
| DELIVERY PSI: | | DEPTH CHARACTERISTICS: | |
| SPRINKLER... | 30 | STATIC... .. | 180 |
| | | DRAW DOWN | 50 |
| | | TOTAL HEAD..... | 230 |
| | | CASING... .. | 400 |
| GALLONS PER MINUTE (GPM)... | 700 | | |
| WORK HORSEPOWER..... | 53 | | |
| EFFICIENCY FACTOR: | | | |
| ELECTRICITY..... .. | 0.540 | | |
| NATURAL GAS..... .. | 0.140 | | |
| LP GAS..... .. | 0.140 | | |
| DIESEL..... .. | 0.180 | | |
| FUEL COST PER UNIT: | | | |
| ELECTRICITY..... .. | 5.73 | CENTS/K | wHr |
| NATURAL GAS.... .. | \$3.28 | \$/MCF | |
| LP GAS..... .. | \$1.21 | \$/GAL | |
| DIESEL..... .. | \$1.30 | \$/GAL | |

FUEL PUMPING COSTS

| | |
|---------------------------|---------|
| ELECTRIC WELL: | |
| COST PER HOUR.....\$ | \$4.22 |
| COST PER ACRE INCH.....\$ | \$2.73 |
| NATURAL GAS WELL: | |
| COST PER HOUR.....\$ | \$3.49 |
| COST PER ACRE INCH.....\$ | \$2.26 |
| LP GAS WELL: | |
| COST PER HOUR.....\$ | \$12.70 |
| COST PER ACRE INCH.....\$ | \$8.21 |
| DIESEL WELL: | |
| COST PER HOUR.....\$ | \$6.90 |
| COST PER ACRE INCH.....\$ | \$4.46 |

TABLE 3. Equipment summary for a 1,280 acre sprinkler-irrigated farm with above average management, Union County, 2003.

| EQUIPMENT | | VARIABLE COSTS | | | | | | FIXED COSTS | | |
|--------------------------|---------------------|----------------|-------------|--------------------|------------------|---------|---------------|--------------|---------|----------------|
| ITEM & SIZE | ANNUAL HOURS OF USE | NUMBE | TOTAL VALUE | FUEL AND LUBRICANT | FUEL,LUBE REPAIR | PER HR | REPAIR PER HR | DEPRECIATION | TAXES | TOTAL PER HOUR |
| TRACTOR 95 HP | 118 | 1 | \$19,240 | \$1,133 | \$760 | \$9.59 | \$6.44 | \$1,226 | \$221 | \$12.25 |
| TRACTOR 126 HP | 429 | 1 | \$31,240 | \$3,948 | \$3,588 | \$9.19 | \$8.36 | \$2,740 | \$353 | \$7.20 |
| TRACTOR 185 HP | 241 | 1 | \$40,700 | \$3,245 | \$973 | \$13.49 | \$4.05 | \$5,995 | \$464 | \$26.85 |
| COMBINE 145 HP | 102 | 1 | \$38,150 | \$1,178 | \$2,213 | \$11.54 | \$21.66 | \$7,600 | \$588 | \$80.16 |
| SWATHER 14 FT | 270 | 1 | \$4,300 | \$1,316 | \$0 | \$4.87 | \$0.00 | \$1,450 | \$149 | \$5.92 |
| ROUND BALER | 287 | 1 | \$4,100 | | \$0 | | \$0.00 | \$550 | \$57 | \$2.11 |
| PLANTER 8-ROW | 31 | 1 | \$4,060 | | \$239 | | \$7.81 | \$1,100 | \$57 | \$37.80 |
| CHISEL HAYMIE 21 FT | 78 | 1 | \$1,650 | | \$53 | | \$0.68 | \$220 | \$17 | \$3.04 |
| ROLLING CULTIVATOR 8-ROW | 38 | 1 | \$4,000 | | \$104 | | \$2.72 | \$533 | \$41 | \$15.02 |
| DISC 28 FT | 119 | 1 | \$10,000 | | \$668 | | \$5.60 | \$1,333 | \$103 | \$12.04 |
| DRILL 21 FT | 80 | 1 | \$4,500 | | \$815 | | \$10.22 | \$900 | \$46 | \$11.86 |
| CORN HEAD 8-ROW | 26 | 1 | \$10,800 | | \$147 | | \$5.75 | \$1,667 | \$129 | \$70.41 |
| GRAIN TABLE 22 FT | 77 | 1 | \$4,150 | | \$84 | | \$1.09 | \$501 | \$39 | \$7.05 |
| SPRAYER 30 FT | 26 | 1 | \$1,500 | | \$54 | | \$2.13 | \$200 | \$15 | \$8.45 |
| GRAIN CART | 102 | 2 | \$6,200 | | \$222 | | \$2.17 | \$827 | \$64 | \$8.72 |
| SEMI-TRACTOR/TRAILER | 84 | 1 | \$16,000 | \$1,308 | \$1,093 | \$15.52 | \$12.96 | \$3,200 | \$165 | \$39.92 |
| CULTI-PACKER | 9 | 1 | \$3,200 | | \$30 | | \$3.20 | \$427 | \$33 | \$49.16 |
| TANDEM-AXLE TRUCK | 18 | 1 | \$9,000 | \$154 | \$58 | \$8.65 | \$3.24 | \$1,800 | \$93 | \$106.04 |
| MINI-GATOR SPRINKLER | 6779 | 1 | \$2,800 | \$633 | \$136 | \$0.09 | \$0.02 | \$373 | \$29 | \$0.06 |
| CENTER PIVOT SPRINKLER | 16583 | 7 | \$105,000 | \$8,238 | \$15,008 | \$0.50 | \$0.91 | \$14,000 | \$1,083 | \$0.91 |
| NATURAL GAS WELL | 16583 | 4 | \$82,000 | \$57,848 | \$3,773 | \$3.49 | \$0.23 | \$8,632 | \$845 | \$0.60 |
| | | | \$402,590 | \$79,002 | \$30,015 | | | \$55,274 | \$4,591 | |

TABLE 4. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003.
Planting dates: August 1 - September 1

| ITEM | PRICE | QUANTITY | PURCHASED INPUTS | | | | | | TOTAL |
|---------------------------------|------------|---------------------|------------------|------------------|---------|-------------|---------|------------|----------|
| <u>PURCHASED INPUTS</u> | | | | | | | | | |
| SEED | \$3.00 | 20 LBS | | \$60.00 | | | | | \$60.00 |
| OAT SEED | \$0.40 | 30 LBS | | \$12.00 | | | | | \$12.00 |
| PUMP WATER* | | 3 AC. IN. | | | | | | | |
| SUBTOTAL | | | | \$72.00 | | | | | \$72.00 |
| <u>PREHARVEST OPERATIONS</u> | | | | | | | | | |
| | POWER UNIT | ACCOMPLISHMENT RATE | | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| DISC | 185 HP | 0.07 HR | | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 |
| CULTI-PACKER | 93 HP | 0.17 HR | | | \$1.28 | \$1.63 | \$1.64 | \$10.44 | \$14.99 |
| DRILL | 93 HP | 0.12 HR | | | \$0.91 | \$1.15 | \$2.00 | \$2.89 | \$6.95 |
| IRRIGATE (4X) | | 0.40 HR | | | \$2.70 | \$7.73 | \$2.20 | \$2.93 | \$15.55 |
| SUBTOTAL | | 0.76 HR | | | \$5.42 | \$11.46 | \$6.51 | \$18.99 | \$42.37 |
| <u>OVERHEAD EXPENSES</u> | | | | | | | | | |
| DOWNTIME | | 0.09 HR | | | \$0.68 | | | | \$0.68 |
| EMPLOYEE BENEFITS | | | | | \$0.98 | | | | \$0.98 |
| INSURANCE | | | | \$0.11 | | | | | \$0.11 |
| SUPERVISION AND MANAGEMENT | | | | | \$8.59 | | | | \$8.59 |
| SUBTOTAL | | 0.09 | | 0.11 | 10.24 | | | | 10.35 |
| <u>TOTAL OPERATING EXPENSES</u> | | 0.85 HR | | \$72.11 | \$15.66 | \$11.46 | \$6.51 | \$18.99 | \$124.72 |

TABLE 5. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003.
Harvesting dates: June 1 - October 10

| ITEM | PRICE | YIELD | | | | | | TOTAL | |
|----------------------------------|------------|---------------------|----------------|------------------|---------|-------------|---------|------------|----------|
| GROSS RETURNS | | | | | | | | | |
| ALFALFA HAY | \$140.00 | 7.00 | TONS (STACKED) | | | | | \$980.00 | |
| TOTAL | | | | | | | | \$980.00 | |
| PURCHASED INPUTS | PRICE | QUANTITY | | PURCHASED INPUTS | | FIXED COST | | TOTAL | |
| NITROGEN (N) | \$0.36 | 30 | LBS | \$10.80 | | | | \$10.80 | |
| PHOSPHATE (P2O5) | \$0.33 | 100 | LBS | \$33.00 | | | | \$33.00 | |
| POTASH (K2O) | \$0.21 | 50 | LBS | \$10.50 | | | | \$10.50 | |
| TRACE ELEMENTS | \$0.15 | 12 | LBS | \$1.80 | | | | \$1.80 | |
| ESTABLISHMENT:Principal | | 7 | YEARS | | | \$17.82 | | \$17.82 | |
| : Interest | | | | | | \$5.20 | | \$5.20 | |
| BALING TWINE | \$25.00 | 0.57 | ROLL | \$14.17 | | | | \$14.17 | |
| PUMP WATER* | | 40 | AC. IN. | | | | | | |
| SUBTOTAL | | | | \$70.27 | | \$23.02 | | \$93.29 | |
| PREHARVEST OPERATIONS | POWER UNIT | ACCOMPLISHMENT RATE | | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| IRRIGATE (11X) | | 1.10 | HR | | \$7.43 | \$103.06 | \$29.29 | \$39.05 | \$178.82 |
| SUBTOTAL | | 1.10 | HR | | \$7.43 | \$103.06 | \$29.29 | \$39.05 | \$178.82 |
| HARVEST OPERATIONS | | | | | | | | | |
| SWATHER (4X) | 13 FT SP | 0.64 | HR | | \$4.83 | \$3.12 | \$0.00 | \$3.79 | \$11.73 |
| BALER (4X) | 126 HP | 0.68 | HR | | \$5.13 | \$6.25 | \$5.68 | \$6.33 | \$23.40 |
| SUBTOTAL | | 1.32 | HR | | \$9.97 | \$9.37 | \$5.68 | \$10.12 | \$35.14 |
| OVERHEAD EXPENSES | | | | | | | | | |
| DOWNTIME | | 0.33 | HR | | \$2.49 | | | | \$2.49 |
| EMPLOYEE BENEFITS | | | | | \$3.13 | | | | \$3.13 |
| INSURANCE | | | | \$0.35 | | | | | \$0.35 |
| LAND TAXES | | | | | | | | \$0.28 | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | | \$70.36 | | | | \$70.36 |
| OTHER EXPENSES | | | | \$32.17 | | | | | \$32.17 |
| SUBTOTAL | | 0.33 | HR | \$32.52 | \$75.98 | | | \$0.28 | \$108.78 |
| TOTAL OPERATING EXPENSES | | 2.75 | HR | \$102.79 | \$93.37 | \$112.43 | \$34.97 | \$72.47 | \$416.02 |
| NET OPERATING PROFIT | | | | | | | | | \$563.98 |
| INTEREST ON OPERATING CAPITAL | (| \$69.47 | @ | 8.00% |) | | | | \$5.56 |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | | \$12.55 |
| RETURN TO LAND AND RISK | | | | | | | | | \$545.86 |

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

BUDGET SUMMARY

| | | | |
|-------------------------------|----------|----------|---|
| GROSS RETURN | | \$980.00 | |
| VARIABLE OPERATING EXPENSES | \$250.18 | | |
| RETURN OVER VARIABLE EXPENSES | | \$729.82 | (GROSS MARGIN) |
| FIXED EXPENSES | \$72.47 | | |
| NET FARM INCOME | | \$657.35 | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$93.37 | | |
| NET OPERATING PROFIT | | \$563.98 | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$18.11 | | |
| RETURN TO LAND AND RISK | | \$545.86 | |

TABLE 6. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003.
 Planting dates: August 15 - November 15
 Harvesting dates: July 1 - July 15

| ITEM | PRICE | YIELD | | | | | | TOTAL | |
|----------------------------------|-------------|---------------------|-----------|------------------|----------------|----------------|----------------|-----------------|-----------------|
| GROSS RETURNS | | | | | | | | | |
| WHEAT | \$3.45 | 47.00 | BUSHEL | | | | | \$162.15 | |
| DIRECT PAYMENT | \$0.52 | 80.00 | BUSHEL | | | | | \$41.60 | |
| COUNTER CYCLICAL PAYMENT | \$0.00 | | | | | | | \$0.00 | |
| GRAZING | \$40.00 | 1.00 | ACRE | | | | | \$40.00 | |
| TOTAL | | | | | | | | \$243.75 | |
| PURCHASED INPUTS | | | | | | | | | |
| PURCHASED INPUTS | PRICE | QUANTITY | | PURCHASED INPUTS | | FIXED COST | | TOTAL | |
| SEED | \$0.13 | 100 | LBS | \$13.00 | | | | \$13.00 | |
| MANURE | \$2.70 | 8 | TON | \$21.60 | | | | \$21.60 | |
| LIVESTOCK FAC & EQUIP | | | | | | \$5.00 | | \$5.00 | |
| PUMP WATER* | | 11 | AC. IN. | | | | | \$0.00 | |
| CROP INSURANCE | \$0.12 | | | | | | | \$0.12 | |
| SUBTOTAL | | | | \$34.60 | | | \$5.00 | \$39.72 | |
| PREHARVEST OPERATIONS | | | | | | | | | |
| | POWER UNIT | ACCOMPLISHMENT RATE | | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| DISC | 185 HP | 0.07 | HR | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 |
| CHISEL | 185 HP | 0.09 | HR | | \$0.68 | \$1.21 | \$0.43 | \$2.69 | \$5.01 |
| DISC | 185 HP | 0.07 | HR | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 |
| DRILL | 126 HP | 0.12 | HR | | \$0.91 | \$1.10 | \$2.23 | \$2.29 | \$6.53 |
| IRRIGATE (7X) | | 0.70 | HR | | \$4.73 | \$29.01 | \$8.20 | \$11.16 | \$53.09 |
| SUBTOTAL | | 1.05 | HR | | \$7.37 | \$33.21 | \$12.20 | \$21.58 | \$74.36 |
| HARVEST OPERATIONS | | | | | | | | | |
| COMBINE | GRAIN TABLE | 0.14 | HR | | \$1.06 | \$1.62 | \$3.19 | \$12.21 | \$18.07 |
| GRAIN CART | 93 HP | 0.14 | HR | | \$1.06 | \$1.34 | \$1.20 | \$2.94 | \$6.54 |
| TRUCK | SEMI | 0.14 | HR | | \$1.06 | \$2.17 | \$1.81 | \$5.59 | \$10.63 |
| SUBTOTAL | | 0.42 | HR | | \$0.00 | \$3.17 | \$5.13 | \$6.20 | \$35.24 |
| OVERHEAD EXPENSES | | | | | | | | | |
| DOWNTIME | | 0.19 | HR | | \$1.45 | | | | \$1.45 |
| EMPLOYEE BENEFITS | | | | | \$1.90 | | | | \$1.90 |
| INSURANCE | | | | \$0.21 | | | | | \$0.21 |
| LAND TAXES | | | | | | | \$0.28 | | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | | \$18.15 | | | | \$18.15 |
| OTHER EXPENSES | | | | \$32.17 | | | | | \$32.17 |
| SUBTOTAL | | 0.19 | HR | | \$32.38 | \$21.50 | | \$0.28 | \$54.16 |
| TOTAL OPERATING EXPENSES | | 1.66 | HR | | \$66.98 | \$32.04 | \$38.34 | \$18.40 | \$203.48 |
| NET OPERATING PROFIT | | | | | | | | \$40.27 | |
| INTEREST ON OPERATING CAPITAL | (| \$29.66 | @ | 8.00% |) | | | \$2.37 | |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | \$18.59 | |
| RETURN TO LAND AND RISK | | | | | | | | \$19.31 | |

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

BUDGET SUMMARY

| | | | |
|-------------------------------|----------|----------|---|
| GROSS RETURN | | \$243.75 | |
| VARIABLE OPERATING EXPENSES | \$123.73 | | |
| RETURN OVER VARIABLE EXPENSES | | \$120.02 | (GROSS MARGIN) |
| FIXED EXPENSES | \$47.59 | | |
| NET FARM INCOME | | \$72.42 | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$32.04 | | |
| NET OPERATING PROFIT | | \$40.39 | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$20.96 | | |
| RETURN TO LAND AND RISK | | \$19.42 | |

TABLE 7. Corn for grain, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003.
 Planting dates: April 15 - May 15
 Harvesting dates: October 1 - November 15

| ITEM | PRICE | YIELD | | | | | | | TOTAL |
|----------------------------------|------------|---------------------|---------|------------------|-----------------|----------------|-----------------|----------------|------------------|
| GROSS RETURNS | | | | | | | | | |
| CORN FOR GRAIN | \$2.85 | 185.00 | BUSHEL | | | | | | \$527.25 |
| DIRECT PAYMENT | \$0.28 | 200.00 | BUSHEL | | | | | | \$56.00 |
| COUNTER CYCLICAL PAYMENT | \$0.00 | 0.00 | BUSHEL | | | | | | \$0.00 |
| GRAZING | \$20.00 | 1.00 | ACRE | | | | | | \$20.00 |
| TOTAL | | | | | | | | | \$603.25 |
| PURCHASED INPUTS | | | | | | | | | |
| PURCHASED INPUTS | PRICE | QUANTITY | | PURCHASED INPUTS | | | | | TOTAL |
| SEED | \$1.12 | 26 | 000 | \$29.17 | | | | | \$29.17 |
| NITROGEN (N) | \$0.36 | 220 | LBS | \$79.20 | | | | | \$79.20 |
| PHOSPHATE (P2O5) | \$0.33 | 70 | LBS | \$23.10 | | | | | \$23.10 |
| POTASSIUM (K-MAG) | \$0.21 | 300 | LBS | \$63.00 | | | | | \$63.00 |
| INSECTICIDE | \$15.07 | 3 | ACRE | \$45.20 | | | | | \$45.20 |
| HERBICIDE | \$22.60 | 1 | ACRE | \$22.60 | | | | | \$22.60 |
| LIVESTOCK FAC & EQUIP | | | | | | \$5.00 | | | \$5.00 |
| PUMP WATER* | | 34 | AC. IN. | | | | | | \$0.00 |
| CROP INSURANCE | \$0.39 | | | | | | | | \$0.39 |
| SUBTOTAL | | | | \$262.27 | | \$5.00 | | | \$267.66 |
| PREHARVEST OPERATIONS | | | | | | | | | |
| | POWER UNIT | ACCOMPLISHMENT RATE | | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| DISC | 185 HP | 0.07 | HR | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 |
| CHISEL | 185 HP | 0.09 | HR | | \$0.68 | \$1.21 | \$0.43 | \$2.69 | \$5.01 |
| DISC & SPRAY | 185 HP | 0.10 | HR | | \$0.76 | \$1.35 | \$1.18 | \$4.73 | \$8.02 |
| PLANTER | 126 HP | 0.12 | HR | | \$0.91 | \$1.10 | \$1.94 | \$5.40 | \$9.35 |
| ROLLING CULT (2X) | 126 HP | 0.20 | HR | | \$1.51 | \$1.84 | \$2.22 | \$4.44 | \$10.01 |
| SIDEDRESS | 185 HP | 0.17 | HR | | \$1.28 | \$2.29 | \$0.69 | \$4.57 | \$8.83 |
| IRRIGATE (16X) | | 1.60 | HR | | \$10.80 | \$89.65 | \$25.33 | \$34.50 | \$160.28 |
| SUBTOTAL | | 2.35 HR | | | \$16.46 | \$98.40 | \$32.45 | \$59.05 | \$206.37 |
| HARVEST OPERATIONS | | | | | | | | | |
| COMBINE | CORN HEAD | 0.20 | HR | | \$1.51 | \$2.31 | \$5.48 | \$30.11 | \$39.41 |
| GRAIN CART | 93 HP | 0.20 | HR | | \$1.51 | \$1.92 | \$1.72 | \$4.19 | \$9.34 |
| TRUCK | SEMI | 0.20 | HR | | \$1.51 | \$3.10 | \$2.59 | \$7.98 | \$15.19 |
| SUBTOTAL | | 0.60 HR | | | \$0.00 | \$4.53 | \$7.33 | \$9.80 | \$42.29 |
| OVERHEAD EXPENSES | | | | | | | | | |
| DOWNTIME | | 0.30 | HR | | \$2.23 | | | | \$2.23 |
| EMPLOYEE BENEFITS | | | | | \$3.78 | | | | \$3.78 |
| INSURANCE | | | | \$0.42 | | | | | \$0.42 |
| LAND TAXES | | | | | | | \$0.28 | | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | | \$45.47 | | | | \$45.47 |
| OTHER EXPENSES | | | | \$32.17 | | | | | \$32.17 |
| SUBTOTAL | | 0.30 HR | | | \$32.59 | \$51.47 | | \$0.28 | \$84.35 |
| TOTAL OPERATING EXPENSES | | 3.25 HR | | | \$294.86 | \$72.47 | \$105.73 | \$42.25 | \$106.62 |
| NET OPERATING PROFIT | | | | | | | | | (\$19.07) |
| INTEREST ON OPERATING CAPITAL | (| \$165.47 | @ | 8.00%) | | | | | \$13.24 |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | | \$41.33 |
| RETURN TO LAND AND RISK | | | | | | | | | (\$73.63) |

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

| | | | |
|-------------------------------|----------|-----------|---|
| GROSS RETURN | | \$603.25 | |
| VARIABLE OPERATING EXPENSES | \$442.84 | | |
| RETURN OVER VARIABLE EXPENSES | | \$160.41 | (GROSS MARGIN) |
| FIXED EXPENSES | \$106.62 | | |
| NET FARM INCOME | | \$53.79 | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$72.47 | | |
| NET OPERATING PROFIT | | (\$18.68) | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$54.56 | | |
| RETURN TO LAND AND RISK | | (\$73.24) | |

TABLE 8. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003.
Planting dates: May 15 - June 15
Harvesting dates: October 15 - November 15

| ITEM | PRICE | YIELD | | | | | | | TOTAL |
|----------------------------------|-------------|---------------------|-----------|------------------|-----------------|----------------|----------------|----------------|-------------------|
| GROSS RETURNS | | | | | | | | | |
| GRAIN SORGHUM | \$4.39 | 35.00 | CWT | | | | | | \$153.65 |
| DIRECT PAYMENT | \$0.625 | 35.00 | CWT | | | | | | \$21.88 |
| COUNTER CYCLICAL PAYMENT | \$0.00 | 0.00 | CWT | | | | | | \$0.00 |
| GRAZING | \$5.00 | 1.00 | ACRE | | | | | | \$5.00 |
| TOTAL | | | | | | | | | \$180.53 |
| PURCHASED INPUTS | | | | | | | | | |
| PURCHASED INPUTS | PRICE | QUANTITY | | PURCHASED INPUTS | | | | | TOTAL |
| SEED | \$1.20 | 5 | LBS | \$6.00 | | | | | \$6.00 |
| NITROGEN (N) | \$0.36 | 150 | LBS | \$54.00 | | | | | \$54.00 |
| PHOSPHATE (P205) | \$0.33 | 50 | LBS | \$16.50 | | | | | \$16.50 |
| HERBICIDE | \$22.60 | 1 | ACRE | \$22.60 | | | | | \$22.60 |
| LIVESTOCK FAC & EQUIP | | | | | | | \$5.00 | | \$5.00 |
| PUMP WATER* | | 12 | AC. IN. | | | | | | |
| CROP INSURANCE | \$0.39 | | | | | | | | \$0.39 |
| SUBTOTAL | | | | \$99.10 | | | \$5.00 | | \$104.50 |
| PREHARVEST OPERATIONS | | | | | | | | | |
| PREHARVEST OPERATIONS | POWER UNIT | ACCOMPLISHMENT RATE | | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL |
| DISC | 185 HP | 0.07 | HR | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 |
| CHISEL | 185 HP | 0.09 | HR | | \$0.68 | \$1.21 | \$0.43 | \$2.69 | \$5.01 |
| DISC & SPRAY | 185 HP | 0.10 | HR | | \$0.76 | \$1.35 | \$1.18 | \$4.73 | \$8.02 |
| PLANTER | 126 HP | 0.12 | HR | | \$0.91 | \$1.10 | \$1.94 | \$5.40 | \$9.35 |
| ROLLING CULT. | 126 HP | 0.10 | HR | | \$0.76 | \$0.92 | \$1.11 | \$2.22 | \$5.00 |
| SIDEDRESS ANHYDROUS | 185 HP | 0.17 | HR | | \$1.28 | \$2.29 | \$0.69 | \$4.57 | \$8.83 |
| IRRIGATE (6X) | | 0.60 | HR | | \$4.05 | \$31.64 | \$8.94 | \$12.17 | \$56.81 |
| SUBTOTAL | | 1.25 | HR | | \$8.96 | \$39.47 | \$14.95 | \$34.51 | \$97.89 |
| HARVEST OPERATIONS | | | | | | | | | |
| COMBINE | GRAIN TABLE | 0.14 | HR | | \$1.06 | \$1.62 | \$3.19 | \$12.21 | \$18.07 |
| GRAIN CART | 93 HP | 0.14 | HR | | \$1.06 | \$1.34 | \$1.20 | \$2.94 | \$6.54 |
| TRUCK | 2 T 18 FT | 0.14 | HR | | \$1.06 | \$1.21 | \$0.45 | \$14.85 | \$17.57 |
| SUBTOTAL | | 0.42 | HR | | \$0.00 | \$3.17 | \$4.17 | \$4.84 | \$29.99 |
| OVERHEAD EXPENSES | | | | | | | | | |
| DOWNTIME | | 0.23 | HR | | \$1.70 | | | | \$1.70 |
| EMPLOYEE BENEFITS | | | | | \$2.18 | | | | \$2.18 |
| INSURANCE | | | | \$0.24 | | | | | \$0.24 |
| LAND TAXES | | | | | | | \$0.28 | | \$0.28 |
| SUPERVISION AND MANAGEMENT | | | | | \$13.90 | | | | \$13.90 |
| OTHER EXPENSES | | | | \$32.17 | | | | | \$32.17 |
| SUBTOTAL | | 0.23 | HR | | \$32.42 | \$17.78 | | \$0.28 | \$50.47 |
| TOTAL OPERATING EXPENSES | | 1.90 | HR | | \$131.52 | \$29.91 | \$43.64 | \$19.80 | \$69.78 |
| NET OPERATING PROFIT | | | | | | | | | (\$114.51) |
| INTEREST ON OPERATING CAPITAL | (| \$64.10 | @ | 8.00% |) | | | | \$5.13 |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | | \$28.57 |
| RETURN TO LAND AND RISK | | | | | | | | | (\$148.20) |

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

| | | | |
|-------------------------------|----------|------------|---|
| GROSS RETURN | | \$180.53 | |
| VARIABLE OPERATING EXPENSES | \$194.96 | | |
| RETURN OVER VARIABLE EXPENSES | | (\$14.43) | (GROSS MARGIN) |
| FIXED EXPENSES | \$69.78 | | |
| NET FARM INCOME | | (\$84.21) | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$29.91 | | |
| NET OPERATING PROFIT | | (\$114.12) | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$33.69 | | |
| RETURN TO LAND AND RISK | | (\$147.81) | |

TABLE 9. Haygrazer/millet, dryland, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2003
 Planting dates: June 1 - June 15
 Harvesting dates: September 1 - September 15

| ITEM | PRICE | YIELD | | | | | | | TOTAL |
|----------------------------------|------------|---------------------|------------------|---------|-------------|---------|------------|---------|----------|
| GROSS RETURNS | | | | | | | | | |
| HAY | \$110.00 | 1.50 TONS | | | | | | | \$165.00 |
| TOTAL | | | | | | | | | \$165.00 |
| PURCHASED INPUTS | PRICE | QUANTITY | PURCHASED INPUTS | | | | | | TOTAL |
| SEED | \$0.43 | 6 LBS | \$2.58 | | | | | | \$2.58 |
| HERBICIDE | \$13.70 | 1 ACRE | \$13.70 | | | | | | \$13.70 |
| BALING TWINE | \$25.00 | 0.13 ROLL | \$3.33 | | | | | | \$3.33 |
| SUBTOTAL | | | \$19.61 | | | | | | \$19.61 |
| PREHARVEST OPERATIONS | POWER UNIT | ACCOMPLISHMENT RATE | PURCHASED INPUTS | LABOR | FUEL & LUBE | REPAIRS | FIXED COST | TOTAL | |
| CHISEL | 185 HP | 0.09 HR | | \$0.68 | \$1.21 | \$0.43 | \$2.69 | \$5.01 | |
| DISC | 185 HP | 0.07 HR | | \$0.53 | \$0.94 | \$0.68 | \$2.72 | \$4.87 | |
| DRILL | 126 HP | 0.12 HR | | \$0.91 | \$1.10 | \$2.23 | \$2.29 | \$6.53 | |
| SUBTOTAL | | 0.28 HR | | \$2.11 | \$3.26 | \$3.33 | \$7.70 | \$16.41 | |
| HARVEST OPERATIONS | | | | | | | | | |
| SWATHER | 14 FT SP | 0.16 HR | | \$1.21 | \$0.78 | \$0.00 | \$0.95 | \$2.93 | |
| BALER | 126 HP | 0.17 HR | | \$1.28 | \$1.56 | \$1.42 | \$1.58 | \$5.85 | |
| SUBTOTAL | | 0.33 HR | \$0.00 | \$2.49 | \$2.34 | \$1.42 | \$2.53 | \$8.78 | |
| OVERHEAD EXPENSES | | | | | | | | | |
| DOWNTIME | | 0.15 HR | | \$1.15 | | | | \$1.15 | |
| EMPLOYEE BENEFITS | | | | \$0.83 | | | | \$0.83 | |
| INSURANCE | | | \$0.09 | | | | | \$0.09 | |
| LAND TAXES | | | | | | | \$0.28 | \$0.28 | |
| SUPERVISION AND MANAGEMENT | | | | \$11.86 | | | | \$11.86 | |
| OTHER EXPENSES | | | \$32.17 | | | | | \$32.17 | |
| SUBTOTAL | | 0.15 HR | \$32.27 | \$13.84 | | | \$0.28 | \$46.38 | |
| TOTAL OPERATING EXPENSES | | 0.43 HR | \$51.88 | \$18.44 | \$5.60 | \$4.75 | \$10.51 | \$91.18 | |
| NET OPERATING PROFIT | | | | | | | | \$73.82 | |
| INTEREST ON OPERATING CAPITAL | (| \$11.77 @ | 8.00% |) | | | | \$0.94 | |
| INTEREST ON EQUIPMENT INVESTMENT | | | | | | | | \$6.35 | |
| RETURN TO LAND AND RISK | | | | | | | | \$66.53 | |

BUDGET SUMMARY

| | | | |
|-------------------------------|---------|----------|---|
| GROSS RETURN | | \$165 | |
| VARIABLE OPERATING EXPENSES | \$62.23 | | |
| RETURN OVER VARIABLE EXPENSES | | \$102.77 | (GROSS MARGIN) |
| FIXED EXPENSES | \$10.51 | | |
| NET FARM INCOME | | \$92.26 | (RETURN TO CAPITAL, LABOR, LAND & RISK) |
| LABOR AND MANAGEMENT COST | \$18.44 | | |
| NET OPERATING PROFIT | | \$73.82 | (RETURN TO CAPITAL, LAND & RISK) |
| CAPITAL COSTS | \$7.29 | | |
| RETURN TO LAND AND RISK | | \$66.53 | |

TABLE 10. Summary of per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.

| | ALFALFA ESTABLISHMENT -----SPRINKLER----- | ALFALFA HAY | WHEAT | CORN FOR GRAIN | GRAIN SORGHUM | HAYGRAZER & MILLET -DRYLAND- |
|----------------------------------|---|----------------|----------|-------------------|------------------|------------------------------------|
| | TONS | TONS | BU | BU | CWT | TONS |
| PRIMARY YIELD | | 7.00 | 47.00 | 185.00 | 35.00 | 1.50 |
| PRIMARY PRICE | | 140.00 | 3.45 | 2.85 | 4.39 | 110.00 |
| GOVERNMENT PAYMENTS | | 0.00 | 41.60 | 56.00 | 21.88 | 0.00 |
| SECOND INCOME | | 0.00 | 40.00 | 20.00 | 5.00 | 0.00 |
| GROSS RETURN | | \$980.00 | \$243.75 | \$603.25 | \$180.53 | \$165.00 |
| CASH OPERATING EXPENSES | | | | | | |
| SEED | \$72.00 | | \$13.00 | \$29.17 | \$6.00 | \$2.58 |
| FERTILIZER | | \$56.10 | \$21.60 | \$165.30 | \$70.50 | |
| CHEMICALS | | | | \$67.80 | \$22.60 | \$13.70 |
| CROP INSURANCE | | | \$0.12 | \$0.39 | \$0.39 | |
| OTHER PURCHASED INPUTS | | \$14.17 | | | | \$3.33 |
| CANAL WATER | | | | | | |
| FUEL, OIL & LUBRICANTS-EQUIPMENT | \$3.73 | \$9.37 | \$9.34 | \$16.07 | \$11.99 | \$5.60 |
| FUEL-IRRIGATION | \$7.73 | \$103.06 | \$29.01 | \$89.65 | \$31.64 | |
| REPAIRS | \$6.51 | \$34.97 | \$18.40 | \$42.25 | \$19.80 | \$4.75 |
| CUSTOM CHARGES | | | | | | \$0.00 |
| LAND TAXES | | \$0.28 | \$0.28 | \$0.28 | \$0.28 | \$0.28 |
| OTHER EXPENSES | \$0.11 | \$32.52 | \$32.38 | \$32.59 | \$32.42 | \$32.27 |
| TOTAL CASH EXPENSES | \$90.07 | \$250.46 | \$124.13 | \$443.51 | \$195.63 | \$62.51 |
| RETURN OVER CASH EXPENSES | (\$90.07) | \$729.54 | \$119.62 | \$159.74 | (\$15.10) | \$102.49 |
| FIXED EXPENSES | \$18.99 | \$72.19 | \$47.32 | \$106.35 | \$69.50 | \$10.23 |
| TOTAL EXPENSES | \$109.06 | \$322.65 | \$171.45 | \$549.86 | \$265.13 | \$72.74 |
| NET FARM INCOME | (\$109.06) | \$657.35 | \$72.30 | \$53.39 | (\$84.60) | \$92.26 |
| LABOR AND MANAGEMENT COSTS | \$15.66 | \$93.37 | \$32.04 | \$72.47 | \$29.91 | \$18.44 |
| NET OPERATING PROFIT | (\$124.72) | \$563.98 | \$40.27 | (\$19.07) | (\$114.51) | \$73.82 |
| CAPITAL COSTS | | | | | | |
| INTEREST ON OPERATING CAPITAL | | \$5.56 | \$2.37 | \$13.24 | \$5.13 | \$0.94 |
| INTEREST ON EQUIPMENT INVESTMENT | | \$12.55 | \$18.59 | \$41.33 | \$28.57 | \$6.35 |
| TOTAL CAPITAL COSTS | \$0.00 | \$18.11 | \$20.96 | \$54.56 | \$33.69 | \$7.29 |
| RETURN TO LAND AND RISK | (\$124.72) | \$545.86 | \$19.31 | (\$73.63) | (\$148.20) | \$66.53 |

TABLE 11. Whole farm summary, Union County, 2002.

| | | |
|----------------------------------|-------------|------------------|
| GROSS RETURNS | | |
| ALFALFA HAY | 375 ACRES | |
| CROP | | \$367,500 |
| WHEAT | 420 ACRES | |
| CROP | | \$68,103 |
| GRAZING | | \$16,800 |
| DIRECT PAYMENT | | \$13,260 |
| COUNTER CYCLICAL PAYMENT | | \$0 |
| CORN FOR GRAIN | 128 ACRES | |
| CROP | | \$67,224 |
| GRAZING | | \$2,550 |
| DIRECT PAYMENT | | \$7,140 |
| COUNTER CYCLICAL PAYMENT | | \$0 |
| GRAIN SORGHUM | 127.5 ACRES | |
| CROP | | \$19,590 |
| GRAZING | | \$638 |
| DIRECT PAYMENT | | \$2,789 |
| COUNTER CYCLICAL PAYMENT | | \$0 |
| HAYGRAZER/MILLET | 190 ACRES | |
| CROP | | \$31,350 |
| GROSS RETURN | | <u>\$596,944</u> |
| CASH OPERATING EXPENSES | | |
| SEED | | \$14,394 |
| FERTILIZER | | \$60,174 |
| CHEMICALS | | \$14,129 |
| CROP INSURANCE | | \$150 |
| OTHER PURCHASED INPUTS | | \$5,946 |
| CANAL WATER | | \$0 |
| FUEL, OIL & LUBRICANTS-EQUIPMENT | | \$12,283 |
| FUEL-IRRIGATION | | \$66,719 |
| REPAIRS | | \$30,015 |
| CUSTOM CHARGES | | \$0 |
| LAND TAXES | | \$345 |
| OTHER EXPENSES | | \$40,222 |
| TOTAL CASH EXPENSES | | <u>\$244,377</u> |
| RETURN OVER CASH EXPENSES | | \$352,567 |
| FIXED EXPENSES | | \$65,671 |
| TOTAL EXPENSES | | \$310,048 |
| NET FARM INCOME | | \$286,897 |
| LABOR AND MANAGEMENT COSTS | | \$65,888 |
| NET OPERATING PROFIT | | \$221,009 |
| CAPITAL COSTS | | |
| INTEREST ON OPERATING CAPITAL | | \$5,601 |
| INTEREST ON EQUIPMENT INVESTMENT | | \$22,635 |
| TOTAL CAPITAL COSTS | | <u>\$28,236</u> |
| RETURN TO LAND AND RISK | | <u>\$192,773</u> |

| LAND VALUE | RETURN TO RISK* | RETURN ON INVESTMENT** |
|---------------|-----------------|------------------------|
| \$500 /ACRE | \$167,173 | 21.20% |
| \$750 /ACRE | \$154,373 | 16.22% |
| \$1,000 /ACRE | \$141,573 | 13.14% |
| \$1,250 /ACRE | \$128,773 | 11.04% |
| \$1,500 /ACRE | \$115,973 | 9.52% |

* 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)