

Table 11A. Income and Cash Operating Cost Summary, Fall Lettuce, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: MaraE TILLAGE: Conventional
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 210.2 Ct/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

| Item | Unit | Quantity | Price /Unit | Budgeted /Acre | Total /Acre | Your Farm Budget |
|--|------|----------|-------------|----------------|-------------|------------------|
| INCOME -> Lettuce | Crtn | 210.20 | \$14.7400 | \$3,098.35 | \$3,098.35 | |
| CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax) | | | | | | |
| Paid Labor (including benefits) | | | | | 79.15 | |
| Tractor/Self Propelled | | | | 41.81 | | |
| Irrigation | | | | 37.33 | | |
| Chemicals & Custom Applications | | | | | 279.11 | |
| Fertilizers | | | | 132.93 | | |
| Insecticides | | | | 67.02 | | |
| Herbicides | | | | 79.17 | | |
| Farm Machinery and Vehicles | | | | | 47.81 | |
| Diesel Fuel | | | | 20.78 | | |
| Repairs & Maint. | | | | 27.02 | | |
| Irrigation (excluding labor) | | | | | 175.65 | |
| Pump Energy - Elect. | | | | 158.35 | | |
| Repairs & Maint. | | | | 17.29 | | |
| Other Purchased Inputs & Services | | | | | 368.88 | |
| Seed/Transplants | | | | 68.88 | | |
| Other Services & Rentals | | | | 300.00 | | |
| TOTAL CASH LAND PREPARATION AND GROWING EXPENSES | | | | | 950.59 | |
| CASH HARVEST AND POST HARVEST EXPENSES | | | | | | |
| Other Materials | | | | | 446.25 | |
| TOTAL HARVEST AND POST HARVEST EXPENSE | | | | | 446.25 | |
| OPERATING OVERHEAD->PICKUP USE | | | | | | 15.07 |
| OPERATING INTEREST AT 9.0% | | | | | | 7.62 |
| TOTAL CASH OPERATING EXPENSES | | | | | \$1,419.53 | |
| RETURNS OVER CASH OPERATING EXPENSES | | | | | \$1,678.82 | |

Notes: The above figures do not include ownership costs, see Table 11B on Next Page for detailed cost allocation.

Table 11B. Allocation of Ownership Costs; Fall Lettuce, 1996

| | | | |
|------------------------|------------------------|---------------------------------|-----------------------|
| COUNTY: Pima | FARM: Pima County Farm | WATER SOURCE: MaraE | TILLAGE: Conventional |
| CROP: Lettuce, Iceberg | ACRES: 1.0 | IRRIGATION SYSTEM: Flood Furrow | SOIL: Sandy-Loam |
| AREA: Marana | YIELD: 210.2 Ct/Acre | PREVIOUS CROP: Cotton, Upland | DATE: 10/14/96 |

| Item | - CASH COST BASIS (\$/ACRE) - | | - TOTAL COST BASIS (\$/ACRE) - | |
|---|-------------------------------|-------------|--------------------------------|-------------|
| | Income & Costs | Net Returns | Income & Costs | Net Returns |
| TOTAL INCOME at \$ 14.7400/Ct | \$3,098.35 | | \$3,098.35 | |
| TOTAL OPERATING EXPENSES | 1,419.52 | | 1,419.52 | |
| RETURN OVER CASH OPERATING EXPENSES | | \$1,678.82 | | \$1,678.82 |
| CASH OVERHEAD EXPENSES | | | | |
| Taxes, Housing & Insur., Farm Machinery | 5.46 | | 5.46 | |
| Wells & Irrig. System | 11.33 | | 11.33 | |
| Gen. & Off. Overhead (5% of Tot. Oper. Exp.) | 70.97 | | 70.97 | |
| General Farm Maint. (3% of Tot. Oper. Exp.) | 42.59 | | 42.59 | |
| Total Cash Overhead Expenses | <u>130.35</u> | | <u>130.35</u> | |
| Total Cash Oper. & Over. Cost | 1,549.88 | | 1,549.88 | |
| RETURNS OVER CASH OPER. & OVER. EXPENSES. | | 1,548.46 | | 1,548.46 |
| CAPITAL ALLOCATIONS (100% Equity) | | | | |
| Capital Replacement, Machinery & Vehicles | | | 29.78 | |
| Wells & Irrig. System | | | 33.24 | |
| Interest on Equity, Machinery & Vehicles | | | 11.68 | |
| Wells & Irrig. System | | | 18.09 | |
| Total Capital Allocations | | | <u>92.79</u> | |
| RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK | | 1,548.46 | | |
| RETURNS TO LAND, MANAGEMENT & RISK | | | | 1,455.67 |
| LAND COSTS / OWNERSHIP (100% Equity) | | | | |
| Property Taxes (\$540 X 16% X .14778) | 12.76 | | 12.76 | |
| Opport. Inter. on Land (100% X 6.0% X \$540) | | | 32.40 | |
| Total Land Costs | <u>12.76</u> | | <u>45.16</u> | |
| RETURNS TO MANAGEMENT, CAPITAL & RISK | | 1,535.69 | | |
| RETURNS TO MANAGEMENT & RISK | | | | 1,410.50 |
| Management Services (8% of Tot. Oper. Exp.) | | | 113.56 | |
| TOTAL OWNERSHIP COST | <u>143.12</u> | | <u>381.88</u> | |
| TOTAL COST | <u>\$1,562.65</u> | | <u>\$1,801.40</u> | |
| RETURN TO MANAGEMENT, CAPITAL & RISK | | \$1,535.69 | | |
| RETURN TO RISK (PROFITS) | | | | \$1,296.94 |
| BREAK-EVEN PRICE TO COVER OPERATING COST (PER Ct) | | \$6.75 | | \$6.75 |
| BREAK-EVEN PRICE TO COVER OWNERSHIP COST | | \$0.68 | | \$1.81 |
| BREAK-EVEN PRICE TO COVER TOTAL COST | | \$7.43 | | \$8.56 |

Table 11C. Variable Operating Costs; Fall Lettuce, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: MaraE TILLAGE: Conventional
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 210.2 Ct/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

| No. | First Month | Operation | — Hours * — | | Operating Costs (\$/Acre*) | | | | Tot. Cash Expense | Class | | |
|--------------------------------|-------------|-----------------------------|-------------|-------|----------------------------|---------|-----------|-----------|-------------------|-------|------------|-------|
| | | | Machine | Labor | Fuel/Rps. | Labor | Cust/Ser. | Materials | | | Total | Times |
| 1 | Jun | Disk | 0.225 | 0.250 | 3.21 | 2.10 | | | 5.31 | 2.0 | 10.63 | L |
| 2 | Jun | Plow | 0.360 | 0.400 | 5.82 | 3.36 | | | 9.18 | 1.0 | 9.18 | L |
| 3 | Jun | Landplane | 0.257 | 0.286 | 3.18 | 2.41 | | | 5.59 | 2.0 | 11.17 | L |
| 4 | Jul | Apply Fert/Ground | 0.075 | 0.083 | 0.33 | 0.70 | | 85.31 | 86.34 | 1.0 | 86.34 | G |
| 5 | Jul | Apply Herbicide/Ground | 0.225 | 0.250 | 3.28 | 2.10 | | 79.16 | 84.54 | 1.0 | 84.54 | G |
| 6 | Jul | Buck Rows | 0.023 | 0.050 | 0.09 | 0.21 | | | 0.30 | 2.0 | 0.61 | G |
| 7 | Jul | Shovel Ends | | 0.067 | | 0.47 | | | 0.47 | 2.0 | 0.94 | G |
| 8 | Jul | Preirrigate | | 1.000 | 42.18 | 7.01 | | | 49.19 | 1.0 | 49.19 | G |
| 9 | Aug | Disk Ends | 0.011 | 0.013 | 0.16 | 0.11 | | | 0.27 | 2.0 | 0.53 | G |
| 10 | Aug | List | 0.225 | 0.250 | 3.87 | 2.10 | | | 5.97 | 1.0 | 5.97 | L |
| 11 | Aug | Plant | 0.300 | 0.333 | 3.41 | 2.80 | | 68.88 | 75.09 | 1.0 | 75.09 | L |
| 12 | Aug | Irrigate | | 0.599 | 21.09 | 4.20 | | | 25.29 | 7.0 | 177.03 | G |
| 13 | Sep | Roll Beds | 0.129 | 0.143 | 0.69 | 1.20 | | | 1.89 | 1.0 | 1.89 | L |
| 14 | Sep | Thinning | | | | | | 75.00 | 75.00 | 1.0 | 75.00 | G |
| 15 | Sep | Apply Insecticide/Air | | | | | 6.00 | 3.09 | 9.09 | 3.0 | 27.27 | G |
| 16 | Sep | Cultivate | 0.300 | 0.333 | 1.89 | 2.80 | | | 4.69 | 3.0 | 14.07 | G |
| 17 | Sep | Apply Fert/Ground | 0.300 | 0.333 | 4.31 | 2.80 | | 23.81 | 30.92 | 2.0 | 61.85 | G |
| 18 | Oct | Hand Weeding | | | | | | 75.00 | 75.00 | 3.0 | 225.00 | G |
| 19 | Oct | Apply Insecticide/Air | | | | | 6.00 | 7.24 | 13.24 | 3.0 | 39.72 | G |
| 20 | Nov | Harvest NOT FOUND | | | | | | 446.25 | 446.25 | 1.0 | 446.25 | H |
| 21 | Nov | Make Ditches | 0.045 | 0.500 | 0.25 | 4.20 | | | 4.45 | 1.0 | 4.45 | G |
| 22 | Dec | Disk Residue | 0.180 | 0.200 | 2.57 | 1.68 | | | 4.25 | 1.0 | 4.25 | L |
| | | Pickup Use 60 Mi/Ac | 2.000 | | 15.06 | | | | | | 15.06 | O |
| | | Operating Interest at 9.00% | | | | | | 8.93 | | | 8.93 | O |
| TOTAL CASH OPERATING EXPENSES: | | | | | \$252.68 | \$79.15 | \$344.93 | \$758.21 | | | \$1,434.97 | T |

* NOTES: Machine and labor hours and operating cost are for one time over the designated acreage. The 'Tot. Cash Expense' column and the 'TOTAL CASH OPERATING EXPENSES:' row include all operations, all times over. Classes are defined below.

| OPERATING COST SUMMARY BY CLASS | | SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre) | | | | | | | |
|---------------------------------|------------|--|-------|----------|----------|----------|----------|----------|------------|
| | | Prices -> | | -25% | -10% | Budgeted | +10% | +25% | |
| Land Preparation (L) | \$118.17 | | | | | | | | |
| Growing (G) | 846.54 | | | | | | | | |
| Harvest (H) | 446.25 | Yields | | \$11.05 | \$13.26 | \$14.74 | \$16.21 | \$18.42 | Break-even |
| Post Harvest (P) | 0.00 | | | | | | | | |
| Marketing (M) | 0.00 | -25% | 157.6 | 419.40 | 767.97 | 1,000.34 | 1,232.72 | 1,581.28 | 8.39 |
| Operating Overhead (O) | 23.99 | -10% | 189.1 | 701.03 | 1,119.31 | 1,398.16 | 1,677.01 | 2,095.29 | 7.34 |
| | | Budgeted | 210.2 | 888.78 | 1,353.53 | 1,663.37 | 1,973.20 | 2,437.96 | 6.82 |
| Total (T) | \$1,434.97 | +10% | 231.2 | 1,076.53 | 1,587.76 | 1,928.58 | 2,269.40 | 2,780.62 | 6.39 |
| | | +25% | 262.7 | 1,358.16 | 1,939.10 | 2,326.39 | 2,713.69 | 3,294.63 | 5.88 |
| | | Break-even Yield | | 110.69 | 88.73 | 78.36 | 70.16 | 60.65 | |

Table 11D. Resource and Cash Flow Requirements; Fall Lettuce, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: Marae TILLAGE: Conventional
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 210.2 Ct/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

| Month * | Number Irrig. | Water Applied (Inches) | Total Labor (Hrs) | Operating Cost (\$/Acre) | | | | | | Total |
|----------------------------|---------------|------------------------|-------------------|--------------------------|---------------------|--------------|---------------|-----------------|---------------|-----------------|
| | | | | Purchased Water | Fuel, Oil & Repairs | Labor | Chemicals | Other Purchases | Services | |
| JUN C | | | 1.18 | | 15.43 | 9.97 | | | | 25.40 |
| JUL C | 1.0 | 12.0 | 1.73 | | 49.06 | 12.89 | 164.47 | | | 226.43 |
| AUG C | 1.0 | 6.0 | 1.31 | | 28.62 | 9.89 | | 68.88 | | 107.39 |
| SEP C | 2.0 | 12.0 | 2.35 | | 51.12 | 18.11 | 33.09 | | 93.00 | 195.32 |
| OCT C | 2.0 | 12.0 | 1.86 | | 48.38 | 14.00 | 38.30 | | 162.00 | 262.68 |
| NOV C | 2.0 | 12.0 | 1.69 | | 42.43 | 12.60 | 7.24 | 446.25 | 81.00 | 589.53 |
| DEC C | | | 0.20 | | 2.57 | 1.68 | | | | 4.25 |
| Pickup Use 60 Mi/Ac | | | | | 15.06 | | | | | 15.06 |
| Operating Interest at 9.0% | | | | | | | | 8.93 | | 8.93 |
| Total | 8.0 | 54.0 | 10.34 | | 252.68 | 79.15 | 243.10 | 515.13 | 344.93 | 1,434.99 |
| % | | | | | 17.60 | 5.51 | 16.94 | 35.89 | 24.03 | 100.00 |

| TOTAL RESOURCES REQUIREMENTS (/Acre) | | TOTAL ENERGY REQUIREMENTS (/Acre) | |
|--------------------------------------|-----------|-----------------------------------|-------------|
| Total N | 196.6 lbs | Diesel Fuel | 24.1 Gal |
| Total P | 240.0 lbs | Regular Gas | 0.0 Gal |
| Total K | 0.0 lbs | NonLead Gas | 6.0 Gal |
| Total Labor | 10.3 Hrs | Electricity/Pumping | 2,730.6 KWH |
| Total Water | 54.0 AI | All Direct Energy | 13.4 M BTU |

| EQUIPMENT REQUIREMENTS (/Acre) | | | |
|--------------------------------|----------|---------------------------------|----------|
| Tractor, 150 PTO HP, MFWD | 2.58 Hrs | Offset Disk, 13.5' | 0.65 Hrs |
| Landplane 12' X 45' | 0.51 Hrs | Tractor, 50 PTO HP, MFWD | 0.12 Hrs |
| Fert. Side Dress Unit, 6Row | 0.23 Hrs | Rowbuck, 10' | 0.05 Hrs |
| Tractor, 70 PTO HP, MFWD | 1.37 Hrs | Bed Shaper, 4 Rw | 0.30 Hrs |
| Bed Roller, 4 Rw | 0.13 Hrs | Rolling Cultivator, 4 Rw | 0.90 Hrs |
| Blade Scraper, 10' | 0.05 Hrs | Pickup Truck, 1/2 Ton | 2.00 Hrs |
| | | Moldboard Plow, 4-16 2 Way | 0.36 Hrs |
| | | Fertilizer Broadcaster, Towed | 0.08 Hrs |
| | | Disk-Lister, 6 Rw | 0.23 Hrs |
| | | Planter/Gramor, 4 Bd, 8 Line/Be | 0.30 Hrs |
| | | Fert. Side Dress Unit, 4Row | 0.60 Hrs |

| MATERIALS REQUIREMENTS (/Acre) | | | |
|--------------------------------|-----------|-----------------|-----------|
| 11-48-00, Dry | 500.00 Lb | Benefin | 2.00 Pt |
| Water, Pump | 54.00 AI | Head Lettuce Sd | 160.00 Th |
| 32-00-00, URAN 32, Lqd | 40.00 Ga | Cypermethrin | 12.00 Oz |
| | | Pronamide | 2.00 Lb |
| | | Methomyl | 1.50 Pt |
| | | Lettuce Cartons | 425.00 Ct |

| LABOR REQUIREMENTS (/Acre) | | | |
|----------------------------|---|----------|------------|
| Tractor | æ | 4.97 Hrs | Irrigators |
| | | | 5.33 Hrs |

* NOTE: P = Previous Year C = Current Year N = Next Year

Table 11E. Schedule of Operations; Fall Lettuce, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: MaraE TILLAGE: Conventional
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 210.2 Ct/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/14/96

| No. | First Month | Times | Operation | Equipment/Custom Oper. | | Job Rate Acres/Hr | Material Name | Material Use & Cost | | Service Cost \$/Unit | Labor \$/Unit | Type |
|-----|-------------|-------|-----------------------|------------------------|--|----------------------|----------------------|---------------------|----------------------|-------------------------|------------------|-----------|
| | | | | HP | Self-Prop./Implem. | | | Appl. Rate | \$/Unit | | | |
| 1 | Jun | 2.0 | Disk | 150 | Offset Disk, 13.5' | 4.00 | | | | | | Tractor |
| 2 | Jun | 1.0 | Plow | 150 | Moldboard Plow, 4-16 2 | 2.50 | | | | | | Tractor |
| 3 | Jun | 2.0 | Landplane | 150 | Landplane 12'X 45' | 3.50 | | | | | | Tractor |
| 4 | Jul | 1.0 | Apply Fert/Ground | 50 | Fertilizer Broadcaster, | 12.00 | 11-48-00, Dry | 500.00 Lb | 325.00 Tn | | | Tractor |
| 5 | Jul | 1.0 | Apply Herbicide/Groun | 150 | Fert. Side Dress Unit, | 4.00 | Benefin Pronamide | 2.00 Pt 2.00 Lb | 14.95 Ga 22.75 Lb | | | Tractor |
| 6 | Jul | 2.0 | Buck Rows | 50 | Rowbuck, 10' | 40.00 | | | | | | Tractor |
| 7 | Jul | 2.0 | Shovel Ends | | | 15.00 | | | | | | Irrigator |
| 8 | Jul | 1.0 | Preirrigate | | | 1.00 | Water, Pump | 12.00 AI | 42.18 AF | | | Irrigator |
| 9 | Aug | 2.0 | Disk Ends | 150 | Offset Disk, 13.5' | 80.00 | | | | | | Tractor |
| 10 | Aug | 1.0 | List | 150 | Disk-Lister, 6 Rw | 4.00 | | | | | | Tractor |
| 11 | Aug | 1.0 | Plant | 70 | Bed Shaper, 4 Rw Planter/Gramor, 4 Bd,8 | 3.00 | Head Lettuce Sd | 160.00 Th | 0.41 Th | | | Tractor |
| 12 | Aug | 7.0 | Irrigate | | | 1.67 | Water, Pump | 6.00 AI | 42.18 AF | | | Irrigator |
| 13 | Sep | 1.0 | Roll Beds | 70 | Bed Roller, 4 Rw | 7.00 | | | | | | Tractor |
| 14 | Sep | 1.0 | Thinning | | CST Thinning | | | | | 75.00 Ac | | |
| 15 | Sep | 3.0 | Apply Insecticide/Air | | CST Air Spray, 3 Gal Mi | | Methomyl | 0.50 Pt | 47.16 Ga | 6.00 Ac | | |
| 16 | Sep | 3.0 | Cultivate | 70 | Rolling Cultivator, 4 R | 3.00 | | | | | | Tractor |
| 17 | Sep | 2.0 | Apply Fert/Ground | 150 | Fert. Side Dress Unit, | 3.00 | 32-00-00, URAN 32, | 20.00 Ga | 205.00 Tn | | | Tractor |
| 18 | Oct | 3.0 | Hand Weeding | | CST Hand Weeding | | | | | 75.00 Ac | | |
| 19 | Oct | 3.0 | Apply Insecticide/Air | | CST Air Spray, 3 Gal Mi | | Cypermethrin | 4.00 Oz | 220.75 Ga | 6.00 Ac | | |
| 20 | Nov | 1.0 | Harvest | | CST | | Lettuce Cartons | 425.00 Ct | 1.00 Ct | 0.00 | | |
| 21 | Nov | 1.0 | Make Ditches | 70 | Blade Scraper, 10' | 20.00 | | | | | | Tractor |
| 22 | Dec | 1.0 | Disk Residue | 150 | Offset Disk, 13.5' | 5.00 | | | | | | Tractor |
| | | | Pickup Use | 60 Mi/Ac | Pickup Truck, 1/2 Ton | 0.50 | | | | | | |

* NOTE: Machine times, labor times, and material rates are for one time over the designated acreage.