

Table 7A. Income and Cash Operating Cost Summary, Pima (ELS) Cotton, 1996

| | | | |
|--------------------|------------------------|---------------------------------|-----------------------|
| COUNTY: Pima | FARM: Pima County Farm | WATER SOURCE: C-MID | TILLAGE: Conventional |
| CROP: Cotton, Pima | ACRES: 1.0 | IRRIGATION SYSTEM: Flood Furrow | SOIL: Sandy-Loam |
| AREA: Marana | YIELD: 679.0 Lb/Acre | PREVIOUS CROP: Cotton, Pima | DATE: 10/14/96 |

| Item | Unit | Quantity | Price /Unit | Budgeted /Acre | Total /Acre | Your Farm Budget |
|------------------------------------------------------------------|-------|----------|-------------|----------------|-------------|------------------|
| INCOME -> Lint | Pound | 679.00 | \$0.9400 | \$638.26 | | |
| CottonSeed | Ton | 0.66 | 114.6000 | 75.64 | \$713.90 | |
| CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax) | | | | | | |
| Paid Labor (including benefits) | | | | | 67.21 | |
| Tractor/Self Propelled | | | | 35.32 | | |
| Hand | | | | 6.66 | | |
| Irrigation | | | | 25.23 | | |
| Chemicals & Custom Applications | | | | | 164.04 | |
| Fertilizers | | | | 41.07 | | |
| Insecticides | | | | 92.71 | | |
| Herbicides | | | | 30.26 | | |
| Farm Machinery and Vehicles | | | | | 44.83 | |
| Diesel Fuel | | | | 19.41 | | |
| Repairs & Maint. | | | | 25.42 | | |
| Irrigation Water (excluding labor) | | | | | 132.00 | |
| Other Purchased Inputs & Services | | | | | 16.56 | |
| Seed/Transplants | | | | 7.56 | | |
| Other Services & Rentals | | | | 9.00 | | |
| TOTAL CASH LAND PREPARATION AND GROWING EXPENSES | | | | | 424.64 | |
| CASH HARVEST AND POST HARVEST EXPENSES | | | | | | |
| Paid Labor (including benefits) | | | | | 7.52 | |
| Tractor/Self Propelled | | | | 4.02 | | |
| Other/Contract | | | | 3.50 | | |
| Chemicals & Custom Applications | | | | | 32.04 | |
| Other Chemicals | | | | 32.04 | | |
| Farm Machinery and Vehicles | | | | | 33.48 | |
| Diesel Fuel | | | | 5.10 | | |
| Repairs & Maint. | | | | 28.38 | | |
| Custom Harvest/Post Harvest | | | | | 2.05 | |
| Cotton Ginning | | | | | 79.88 | |
| Crop Assessments | | | | | 9.02 | |
| Other Materials | | | | | 0.70 | |
| TOTAL HARVEST AND POST HARVEST EXPENSE | | | | | 164.69 | |
| OPERATING OVERHEAD->PICKUP USE | | | | | 15.07 | |
| OPERATING INTEREST AT 9.0% | | | | | 13.52 | |
| TOTAL CASH OPERATING EXPENSES | | | | | \$617.91 | |
| RETURNS OVER CASH OPERATING EXPENSES | | | | | \$95.99 | |

Notes: The above figures do not include ownership costs, see Table 7B on Next Page for detailed cost allocation.

Table 7B. Allocation of Ownership Costs; Pima (ELS) Cotton, 1996

| | | | |
|--------------------|------------------------|---------------------------------|-----------------------|
| COUNTY: Pima | FARM: Pima County Farm | WATER SOURCE: C-MID | TILLAGE: Conventional |
| CROP: Cotton, Pima | ACRES: 1.0 | IRRIGATION SYSTEM: Flood Furrow | SOIL: Sandy-Loam |
| AREA: Marana | YIELD: 679.0 Lb/Acre | PREVIOUS CROP: Cotton, Pima | DATE: 10/14/96 |

| Item | - CASH COST BASIS (\$/ACRE) - | | - TOTAL COST BASIS (\$/ACRE) - | |
|---------------------------------------------------|-------------------------------|-------------|--------------------------------|-------------|
| | Income & Costs | Net Returns | Income & Costs | Net Returns |
| TOTAL INCOME at \$ 0.9400/Lb + 2nd Crop | \$713.90 | | \$713.90 | |
| TOTAL OPERATING EXPENSES | 617.91 | | 617.91 | |
| RETURN OVER CASH OPERATING EXPENSES | | \$95.98 | | \$95.98 |
| CASH OVERHEAD EXPENSES | | | | |
| Taxes, Housing & Insur., Farm Machinery | 7.88 | | 7.88 | |
| Gen. & Off. Overhead (5% of Tot. Oper. Exp.) | 30.89 | | 30.89 | |
| General Farm Maint. (3% of Tot. Oper. Exp.) | 18.54 | | 18.54 | |
| Total Cash Overhead Expenses | <u>57.31</u> | | <u>57.31</u> | |
| Total Cash Oper. & Over. Cost | 675.22 | | 675.22 | |
| RETURNS OVER CASH OPER. & OVER. EXPENSES. | | 38.67 | | 38.67 |
| CAPITAL ALLOCATIONS (100% Equity) | | | | |
| Capital Replacement, Machinery & Vehicles | | | 52.41 | |
| Interest on Equity, Machinery & Vehicles | | | 23.13 | |
| Total Capital Allocations | | | <u>75.54</u> | |
| RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK | | 38.67 | | |
| RETURNS TO LAND, MANAGEMENT & RISK | | | | >(36.87) |
| 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 | | 25.90 | | |
| RETURNS TO MANAGEMENT & RISK | | | | >(82.03) |
| Management Services (8% of Tot. Oper. Exp.) | | | 49.43 | |
| TOTAL OWNERSHIP COST | <u>70.08</u> | | <u>227.45</u> | |
| TOTAL COST | <u>\$687.99</u> | | <u>\$845.37</u> | |
| RETURN TO MANAGEMENT, CAPITAL & RISK | | \$25.90 | | |
| RETURN TO RISK (PROFITS) | | | | > \$131.47) |
| BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb) | | \$0.7986 | | \$0.7986 |
| BREAK-EVEN PRICE TO COVER OWNERSHIP COST | | \$0.1032 | | \$0.3349 |
| BREAK-EVEN PRICE TO COVER TOTAL COST | | \$0.9018 | | \$1.1336 |

Table 7C. Variable Operating Costs; Pima (ELS) Cotton, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 679.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/14/96

| No. | First Month | Operation | — Hours * — | | Operating Costs (\$/Acre*) | | | | | Tot. Cash | | | |
|-----|-------------|-------------------------|-------------|---------|----------------------------|-------|-----------|-----------|-------|-----------|---------|-------|---|
| | | | Machine | Labor | Fuel/Rps. | Labor | Cust/Ser. | Materials | Total | Times | Expense | Class | |
| 1 | Jan | Rip | 0.360 | 0.400 | 4.31 | 3.36 | | | 7.67 | 0.5 | 3.83 | L | |
| 2 | Jan | Plow | 0.400 | 0.444 | 6.47 | 3.73 | | | 10.20 | 1.0 | 10.20 | L | |
| 3 | Jan | Landplane | 0.257 | 0.286 | 3.18 | 2.41 | | | 5.59 | 1.0 | 5.59 | L | |
| 4 | Jan | Disk | 0.225 | 0.250 | 3.21 | 2.10 | | | 5.31 | 1.0 | 5.31 | L | |
| 5 | Jan | Apply Herbicide/Ground | 0.150 | 0.167 | 1.92 | 1.40 | | 13.79 | 17.11 | 1.0 | 17.11 | G | |
| 6 | Jan | List | 0.180 | 0.200 | 2.36 | 1.68 | | | 4.04 | 1.0 | 4.04 | L | |
| 7 | Jan | Disk Ends | 0.011 | 0.013 | 0.16 | 0.11 | | | 0.27 | 5.0 | 1.34 | G | |
| 8 | Jan | Buck Rows | 0.022 | 0.025 | 0.12 | 0.21 | | | 0.33 | 4.0 | 1.32 | G | |
| 9 | Jan | Preirrigate | | 0.900 | | 6.31 | | 33.00 | 39.31 | 1.0 | 39.31 | G | |
| 10 | Mar | Mulch | 0.300 | 0.333 | 4.63 | 2.80 | | | 7.43 | 1.0 | 7.43 | L | |
| 11 | Apr | Plant | 0.225 | 0.250 | 2.65 | 2.10 | | 7.56 | 12.31 | 1.0 | 12.31 | L | |
| 12 | Apr | Remove Cap | 0.129 | 0.143 | 1.40 | 1.20 | | | 2.60 | 1.0 | 2.60 | G | |
| 13 | Apr | Cultivate | 0.300 | 0.333 | 2.05 | 2.80 | | | 4.85 | 1.0 | 4.85 | G | |
| 14 | Jun | Cultivate | 0.164 | 0.182 | 1.12 | 1.53 | | | 2.65 | 3.0 | 7.94 | G | |
| 15 | Jun | Hand Weeding | | 2.000 | | 13.32 | | | 13.32 | 0.5 | 6.66 | G | |
| 16 | Jun | Soil Fertility | | | | | | 3.00 | 3.00 | 1.0 | 3.00 | G | |
| 17 | Jun | Field Scouting | | | | | | 6.00 | 6.00 | 1.0 | 6.00 | G | |
| 18 | Jun | Irrigate/Run Fertilizer | | 0.450 | | 3.15 | | 30.19 | 33.34 | 3.0 | 100.02 | G | |
| 19 | Jun | Irrigate | | 0.450 | | 3.15 | | 16.50 | 19.65 | 3.0 | 58.95 | G | |
| 20 | Jun | Apply Insect./Ground | 0.090 | 0.100 | 0.83 | 0.84 | | 1.90 | 3.57 | 2.0 | 7.15 | G | |
| 21 | Jun | Apply Insect./Ground | 0.090 | 0.100 | 0.83 | 0.84 | | 1.47 | 3.14 | 1.0 | 3.14 | G | |
| 22 | Jul | Apply Herbicide/Ground | 0.225 | 0.250 | 3.40 | 2.10 | | 16.47 | 21.97 | 1.0 | 21.97 | G | |
| 23 | Aug | Apply Insecticide/Air | | | | | | 6.00 | 14.43 | 20.43 | 1.0 | 20.43 | G |
| 24 | Aug | Apply Insecticide/Air | | | | | | 6.00 | 10.75 | 16.75 | 4.0 | 67.00 | G |
| 25 | Oct | Apply Defoliant/Air | | | | | | 8.32 | 23.72 | 32.04 | 1.0 | 32.04 | H |
| 26 | Oct | Cotton, First Pick | 0.450 | 0.500 | 28.10 | 3.50 | | | 31.60 | 1.0 | 31.60 | H | |
| 27 | Oct | Cotton, Make Modules | 0.250 | 0.278 | 3.11 | 2.34 | | 0.70 | 6.15 | 1.0 | 6.15 | H | |
| 28 | Oct | Haul, Custom | | 0.1 Mu | | | | | 0.00 | 1.0 | 0.00 | H | |
| 29 | Oct | Cotton Ginning | | 20.0 Cs | | | | 79.88 | 79.88 | 1.0 | 79.88 | P | |

* NOTES: See next page for notes.

Table 7C. Variable Operating Costs; Pima (ELS) Cotton, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 679.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/14/96

| No. | First Month | Operation | — Hours * — | | Operating Costs (\$/Acre*) | | | | Total | Times | Tot. Cash | |
|---------------------------------------|-------------|-----------------------------|-------------|-------|----------------------------|----------------|-----------------|-----------------|-------|-------|-----------------|----------|
| | | | Machine | Labor | Fuel/Rps. | Labor | Cust/Ser. | Materials | | | Expense | Class |
| 30 | Dec | Cotton Classing | 1.4 | Ba | | | | 2.05 | 2.05 | 1.0 | 2.05 | M |
| 31 | Dec | Crop Assessment | 1.4 | Ba | | | | 9.02 | 9.02 | 1.0 | 9.02 | M |
| 32 | Dec | Cut Stalks | 0.180 | 0.200 | 2.28 | 1.68 | | | 3.96 | 1.0 | 3.96 | P |
| 33 | Dec | Disk Residue | 0.300 | 0.333 | 4.28 | 2.80 | | | 7.08 | 1.0 | 7.08 | L |
| | | Pickup Use 60 Mi/Ac | 2.000 | | 15.06 | | | | | | 15.06 | O |
| | | Operating Interest at 9.00% | | | | | 12.71 | | | | 12.71 | O |
| TOTAL CASH OPERATING EXPENSES: | | | | | \$93.38 | \$74.69 | \$150.98 | \$298.01 | | | \$617.05 | 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) | \$55.80 | | | | | | | | |
| Growing (G) | 368.78 | | | | | | | | |
| Harvest (H) | 69.78 | Yields | | \$0.70 | \$0.84 | \$0.94 | \$1.03 | \$1.17 | Break-even |
| Post Harvest (P) | 83.83 | | | | | | | | |
| Marketing (M) | 11.06 | -25% | 509.2 | -216.86 | -145.05 | -97.18 | -49.31 | 22.48 | 1.13 |
| Operating Overhead (O) | 27.77 | -10% | 611.1 | -169.76 | -83.59 | -26.15 | 31.29 | 117.45 | 0.98 |
| | | Budgeted | 679.0 | -138.35 | -42.62 | 21.20 | 85.03 | 180.77 | 0.90 |
| Total (T) | \$617.05 | +10% | 746.9 | -106.95 | -1.64 | 68.56 | 138.77 | 244.08 | 0.84 |
| | | +25% | 848.7 | -59.85 | 59.81 | 139.59 | 219.38 | 339.05 | 0.77 |
| | | Break-even Yield | | 978.18 | 749.62 | 648.59 | 571.56 | 485.13 | |

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 679.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/14/96

| No. | Month | First Times | Operation | Equipment/Custom Oper. HP Self-Prop./Implem. | Job Rate Acres/Hr | Material Use & Cost Name Appl. Rate \$/Unit | Service Cost \$/Unit | Labor Type |
|-----|-------|-------------|-----------------------|--------------------------------------------------------|----------------------|--------------------------------------------------------|-------------------------|---------------|
| 1 | Jan | 0.5 | Rip | 150 V-Ripper, 5 Shnk | 2.50 | | | Tractor |
| 2 | Jan | 1.0 | Plow | 150 Moldboard Plow, 5-16 2 | 2.25 | | | Tractor |
| 3 | Jan | 1.0 | Landplane | 150 Landplane 12'X 45' | 3.50 | | | Tractor |
| 4 | Jan | 1.0 | Disk | 150 Offset Disk, 13.5' | 4.00 | | | Tractor |
| 5 | Jan | 1.0 | Apply Herbicide/Groun | 150 Directed Spray Rig, 16 | 6.00 | Prometryn 2.50 Pt Trifluralin 1.00 Pt | 30.00 Ga 30.06 Ga | Tractor |
| 6 | Jan | 1.0 | List | 150 Lister, 7 Bottom | 5.00 | | | Tractor |
| 7 | Jan | 5.0 | Disk Ends | 150 Offset Disk, 13.5' | 80.00 | | | Tractor |
| 8 | Jan | 4.0 | Buck Rows | 70 Rowbuck, 10' | 40.00 | | | Tractor |
| 9 | Jan | 1.0 | Preirrigate | | 1.11 | Water, District 12.00 AI | 33.00 AF | Irrigator |
| 10 | Mar | 1.0 | Mulch | 150 Power Mulcher, 6 Rw | 3.00 | | | Tractor |
| 11 | Apr | 1.0 | Plant | 70 Planter, 6 Row | 4.00 | Pima Cotton Sd + F 12.00 Lb | 60.00 CW | Tractor |
| 12 | Apr | 1.0 | Remove Cap | 150 Section Harrow, 3 Secti | 7.00 | | | Tractor |
| 13 | Apr | 1.0 | Cultivate | 70 Rolling Cultivator, 6 R | 3.00 | | | Tractor |
| 14 | Jun | 3.0 | Cultivate | 70 Rolling Cultivator, 6 R | 5.50 | | | Tractor |
| 15 | Jun | 0.5 | Hand Weeding | | 0.50 | | | Hand Weed |
| 16 | Jun | 1.0 | Soil Fertility | CST Soil Analysis (Surf) | | | 3.00 Ac | |
| 17 | Jun | 1.0 | Field Scouting | CST Scout For Insects | | | 6.00 Ac | |
| 18 | Jun | 3.0 | Irrigate/Run Fertiliz | | 2.22 | Water, District 6.00 AI 32-00-00, URAN 32, 11.50 Ga | 33.00 AF 205.00 Tn | Irrigator |
| 19 | Jun | 3.0 | Irrigate | | 2.22 | Water, District 6.00 AI | 33.00 AF | Irrigator |
| 20 | Jun | 2.0 | Apply Insect./Ground | 70 Saddle Tk Sprayer, 2 Tk Directed Spray Rig, 16 | 10.00 | 0.50 Pt | 28.93 Ga | Tractor |
| 21 | Jun | 1.0 | Apply Insect./Ground | 70 Saddle Tk Sprayer, 2 Tk Directed Spray Rig, 16 | 10.00 | Chlorpyrifos 0.25 Pt | 44.73 Ga | Tractor |
| 22 | Jul | 1.0 | Apply Herbicide/Groun | 150 Cultivator, Sweep, 6 Rw Saddle Tk Sprayer, 2 Tk | 4.00 | Prometryn 2.50 Pt Cyanazine 1.00 Qt | 30.00 Ga 25.26 Ga | Tractor |
| 23 | Aug | 1.0 | Apply Insecticide/Air | CST Air Spray, 3 Gal Mi | | Endosulfan 2.00 Pt Acephate 0.50 Lb | 36.50 Ga 9.23 Lb | 6.00 Ac |
| 24 | Aug | 4.0 | Apply Insecticide/Air | CST Air Spray, 3 Gal Mi | | Lambdacyhalothrin 3.20 Oz Acephate 0.50 Lb | 234.04 Ga 8.78 Lb | 6.00 Ac |
| 25 | Oct | 1.0 | Apply Defoliant/Air | CST Air Spray, 5 Gal Mi | | Thidiazuron 0.40 Lb Endothall 1.00 Pt | 50.21 Lb 20.05 Ga | 8.32 Ac |
| 26 | Oct | 1.0 | Cotton, First Pick | Cotton Picker, 4 Row | 2.00 | | | Harvest |
| 27 | Oct | 1.0 | Cotton, Make Modules | 80 Module Builder | 3.60 | Module Tarps 13.33 CW | 0.05 CW | Tractor |
| 28 | Oct | 1.0 | Haul, Custom | CST Haul Cotton Modules | | | 0.00 Mu | |
| 29 | Oct | 1.0 | Cotton Ginning | CST Gin Pima Cotton | | | 4.00 Cs | |
| 30 | Dec | 1.0 | Cotton Classing | CST Class Cotton, HVI | | | 1.50 Ba | |
| 31 | Dec | 1.0 | Crop Assessment | CST Pima (Low Elev) | | | 6.60 Ba | |
| 32 | Dec | 1.0 | Cut Stalks | 150 Rotary Stalk Cutter, 4 | 5.00 | | | Tractor |
| 33 | Dec | 1.0 | Disk Residue | 150 Offset Disk, 13.5' | 3.00 | | | 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.