

Table 8A. Income and Cash Operating Cost Summary, Pima (ELS) Cotton, 1996

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Lint	Pound	821.00	\$0.9400	\$771.74		
CottonSeed	Ton	0.72	114.6000	82.51	\$854.25	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					71.12	
Tractor/Self Propelled				32.57		
Hand				13.32		
Irrigation				25.23		
Chemicals & Custom Applications					266.48	
Fertilizers				48.46		
Insecticides				190.66		
Herbicides				14.58		
Other Chemicals				12.78		
Farm Machinery and Vehicles					41.79	
Diesel Fuel				18.19		
Repairs & Maint.				23.60		
Irrigation Water (excluding labor)					73.00	
Water Assessment (See Note Below) **					**	
Other Purchased Inputs & Services					7.56	
Seed/Transplants				7.56		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					459.95	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					17.30	
Tractor/Self Propelled				7.49		
Other/Contract				9.81		
Chemicals & Custom Applications					44.92	
Other Chemicals				44.92		
Farm Machinery and Vehicles					56.03	
Diesel Fuel				9.03		
Repairs & Maint.				47.00		
Custom Harvest/Post Harvest					2.54	
Cotton Ginning					96.59	
Crop Assessments					11.17	
TOTAL HARVEST AND POST HARVEST EXPENSE					228.55	
OPERATING OVERHEAD->PICKUP USE					14.86	
OPERATING INTEREST AT 8.0%					17.80	
TOTAL CASH OPERATING EXPENSES					\$721.16	
RETURNS OVER CASH OPERATING EXPENSES					\$133.09	

Notes: The above figures do not include ownership costs, see Table 8B on Next Page for detailed cost allocation.

** A water assessment charge of \$20.34/Acre is included in the ownership costs of Table 8B.

Table 8B. Allocation of Ownership Costs; Pima (ELS) Cotton, 1996

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

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	\$854.25		\$854.25	
TOTAL OPERATING EXPENSES	721.15		721.15	
RETURN OVER CASH OPERATING EXPENSES		\$133.09		\$133.09
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	10.07		10.07	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	36.05		36.05	
General Farm Maint. (3% of Tot. Oper. Exp.)	21.63		21.63	
Total Cash Overhead Expenses	<u>67.75</u>		<u>67.75</u>	
Total Cash Oper. & Over. Cost	788.91		788.91	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		65.33		65.33
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			70.01	
Interest on Equity, Machinery & Vehicles			29.56	
Total Capital Allocations			<u>99.57</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		65.33		
RETURNS TO LAND, MANAGEMENT & RISK				>(34.23)
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$702 X 16% X .12601)	14.15		14.15	
Opport. Inter. on Land (100% X 6.0% X \$702)			42.12	
Water Assessment **	20.34		20.34	
Total Land Costs	<u>34.49</u>		<u>76.61</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		30.84		
RETURNS TO MANAGEMENT & RISK				>(110.84)
Management Services (8% of Tot. Oper. Exp.)			57.69	
TOTAL OWNERSHIP COST	<u>102.25</u>		<u>301.63</u>	
TOTAL COST	<u>823.40</u>		<u>1,022.79</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$30.84		
RETURN TO RISK (PROFITS)				>(\$168.54)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)				
		\$0.7778		\$0.7778
BREAK-EVEN PRICE TO COVER OWNERSHIP COST				
		\$0.1245		\$0.3674
BREAK-EVEN PRICE TO COVER TOTAL COST				
		\$0.9024		\$1.1452

Table 8C. Variable Operating Costs; Pima (ELS) Cotton, 1996

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Tot. Cash Expense	Class		
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials			Total	Times
1	Jan	Plow	0.257	0.286	4.18	2.41			6.59	1.0	6.59	L
2	Jan	Disk	0.170	0.189	2.71	1.59			4.30	1.0	4.30	L
3	Jan	Landplane	0.900	1.000	11.21	8.41			19.62	1.0	19.62	L
4	Jan	Apply Herb. & Incorporate	0.180	0.200	3.10	1.68		4.73	9.51	1.0	9.51	G
5	Jan	List	0.158	0.175	1.86	1.47			3.33	1.0	3.33	L
6	Jan	Buck Rows	0.022	0.025	0.14	0.21			0.35	5.0	1.73	G
7	Feb	Preirrigate		0.600		4.20			4.20	1.0	4.20	G
8	Feb	Disk Ends	0.011	0.013	0.08	0.11			0.19	5.0	0.96	G
9	Mar	Mulch	0.200	0.222	2.41	1.87			4.28	1.0	4.28	L
10	Mar	Plant	0.170	0.189	2.57	1.59		7.56	11.72	1.0	11.72	L
11	Mar	Remove Cap	0.100	0.111	0.61	0.93			1.54	1.0	1.54	G
12	May	Cultivate	0.150	0.167	1.35	1.40			2.75	3.0	8.26	G
13	May	Apply Fert/Ground	0.150	0.167	1.68	1.40		24.23	27.31	2.0	54.62	G
14	May	Irrigate		0.300		2.10		7.30	9.40	10.0	94.00	G
15	Jun	Apply Insecticide/Air					6.00	8.81	14.81	4.0	59.24	G
16	Jun	Apply Growth Regulator					6.00	6.78	12.78	1.0	12.78	G
17	Jul	Apply Insecticide/Air					6.00	13.03	19.03	1.0	19.03	G
18	Jul	Apply Insecticide/Air					6.00	36.75	42.75	1.0	42.75	G
19	Jul	Apply Herbicide/Ground	0.129	0.143	1.37	1.20		9.84	12.41	1.0	12.41	G
20	Jul	Hand Weeding		2.000		13.32			13.32	1.0	13.32	G
21	Aug	Apply Insecticide/Air					6.00	19.21	25.21	1.0	25.21	G
22	Aug	Apply Insecticide/Air					6.00	26.25	32.25	1.0	32.25	G
23	Aug	Apply Insecticide/Air					6.00	6.19	12.19	1.0	12.19	G
24	Aug	Apply Defoliant/Air					8.32	15.51	23.83	1.0	23.83	H
25	Sep	Apply Defoliant/Air					8.32	12.77	21.09	1.0	21.09	H
26	Oct	Prepare Ends	0.045	0.050	0.49	0.42			0.91	1.0	0.91	H
27	Oct	Cotton, First Pick	0.900	1.000	33.79	7.01			40.80	1.0	40.80	H
28	Oct	Cotton, Make Modules	0.300	0.333	3.74	2.80			6.54	1.0	6.54	H
29	Nov	Cotton, Second Pick	0.450	0.500	16.90	3.50			20.40	0.8	16.32	H

* NOTES: See next page for notes.

Table 8C. Variable Operating Costs; Pima (ELS) Cotton, 1996

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
30	Nov	Cotton, Rood	0.257	0.286	2.63	2.41			5.04	1.0	5.04	H
31	Oct	Haul, Custom						0.00	0.00	1.0	0.00	H
32	Oct	Cotton Ginning					96.59	96.59	96.59	1.0	96.59	P
33	Dec	Cotton Classing					2.54	2.54	2.54	1.0	2.54	M
34	Dec	Crop Assessment					11.17	11.17	11.17	1.0	11.17	M
35	Dec	Cut Stalks	0.200	0.222	1.85	1.87		3.72	3.72	1.0	3.72	P
36	Dec	Disk Residue	0.300	0.333	3.27	2.80		6.07	6.07	1.0	6.07	L
		Pickup Use 60 Mi/Ac	2.000		14.85				14.85		14.85	O
		Operating Interest at 8.00%					15.73		15.73		15.73	O
TOTAL CASH OPERATING EXPENSES:					\$112.68	\$88.38	\$202.67	\$315.32		\$719.05		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. A water assessment charge of \$20.34/Acre included as ownership cost in Table 8B.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)							
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	Break-even
Land Preparation (L)	\$55.90								
Growing (G)	403.99								
Harvest (H)	114.53	Yields		\$0.70	\$0.84	\$0.94	\$1.03	\$1.17	Break-even
Post Harvest (P)	100.30								
Marketing (M)	13.71								
Operating Overhead (O)	30.58								
		Budgeted	821.0	-140.24	-24.48	52.69	129.86	245.62	0.87
Total (T)	\$719.04	+10%	903.1	-105.21	22.11	107.01	191.90	319.23	0.82
		+25%	1,026.2	-52.68	92.02	188.48	284.95	429.65	0.75
		Break-even Yield		1,149.73	864.13	741.35	649.13	547.04	

Table 8D. Resource and Cash Flow Requirements; Pima (ELS) Cotton, 1996

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total
JAN C			1.20		14.08	10.11	2.37			26.57
FEB C	1.0	12.0	1.56		11.74	12.30	2.37			26.42
MAR C			0.17		1.84	1.44		1.51		4.79
APR C			0.35		3.75	2.95		6.05		12.75
MAY C	2.0	12.0	0.97		3.25	7.33	24.23			34.81
JUN C	2.0	12.0	0.97	10.00	3.25	7.33	48.62		18.00	87.20
JUL C	3.0	18.0	3.24	15.00	2.94	22.56	68.43		18.00	126.93
AUG C	2.0	12.0	0.63	21.50	0.22	4.52	60.46		24.00	110.70
SEP C	1.0	6.0	0.30	16.50		2.10	14.13		8.32	41.05
OCT C			0.44		11.75	3.36	14.13		37.30	66.54
NOV C			1.34		37.36	9.89			48.29	95.54
DEC C			0.55		7.63	4.52			33.03	45.17
Pickup Use 60 Mi/Ac					14.85					14.85
Operating Interest at 8.0%									15.10	15.10
Water Assessment				**						
Total	11.0	72.0	11.76	63.00	112.68	88.43	234.74	7.56	202.04	708.44
%				8.89	15.90	12.48	33.13	1.06	28.51	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	119.6 lbs	Diesel Fuel	31.1 Gal
Total P	0.0 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	6.0 Gal
Total Labor	11.7 Hrs	All Direct Energy	5.0 M BTU
Total Water	72.0 AI		

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 150 PTO HP, MFWD	1.51 Hrs	Moldboard Plow, 5-16 2 Way	0.26 Hrs
Landplane 12'X 45'	0.90 Hrs	Dbl. Offset Disk, 16'	0.18 Hrs
Tractor, 125 PTO HP, MFWD	0.16 Hrs	Lister, 7 Bottom	0.16 Hrs
Rotary Stalk Cutter, 4 Row	0.20 Hrs	Offset Disk, 13.5'	0.35 Hrs
Rowbuck, 10'	0.11 Hrs	Tandem Disk, 12'	0.06 Hrs
Bed Shaper, 6 Rw	0.17 Hrs	Planter, 6 Row	0.17 Hrs
Rolling Cultivator, 6 Rw	0.58 Hrs	Fert. Side Dress Unit, 6Row	0.30 Hrs
Cotton Picker, 2 Row	1.26 Hrs	Module Builder	0.30 Hrs
Rood, 3 Row W/Basket Cleaner	0.26 Hrs	Pickup Truck, 1/2 Ton	2.00 Hrs
		Offset Disk, 18'	0.17 Hrs
		Saddle Tk Sprayer, 2 Tk 8 Row	0.18 Hrs
		Tractor, 100 PTO HP, MFWD	1.79 Hrs
		Tractor, 80 PTO HP, MFWD	0.82 Hrs
		Power Mulcher, 6 Rw	0.20 Hrs
		Section Harrow, 4 Section	0.10 Hrs
		Directed Spray Rig, 8 Row	0.13 Hrs
		Cotton Trailer 30'X 8'X 6'	0.00 Hrs

MATERIALS REQUIREMENTS (/Acre)			
Trifluralin	1.20 Pt	Water, District	72.00 AI
46-00-00, Urea 46	260.00 Lb	Chlorpyrifos	6.00 Pt
Oxamyl	1.50 Pt	Pyriproxyfen	8.00 Oz
Methidathion	3.00 Pt	Buprofezin	0.50 Lb
Thidiazuron/diuron	9.50 Oz	Sodium Chlorate	2.00 Ga
		Pima Cotton Sd + Fung	12.00 Lb
		Mepiquat Chloride	0.50 Pt
		Prometryn	2.50 Pt
		Methomyl	1.00 Pt

LABOR REQUIREMENTS (/Acre)			
Tractor	4.76 Hrs	Irrigators	3.60 Hrs
Harvest	1.40 Hrs	Hand Weeders	2.00 Hrs

* NOTE: P = Previous Year C = Current Year N = Next Year
 ** A water assessment charge of \$20.34/Acre included as ownership cost in Table 8B.

COUNTY: Maricopa FARM: Maricopa County Farm WATER SOURCE: SRP TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 821.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

No.	First Month	Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	Material Use & Cost			Service Cost \$/Unit	Labor Type
				HP	Self-Prop./Implem.		Name	Appl. Rate	\$/Unit		
1	Jan	1.0	Plow	150	Moldboard Plow, 5-16	2					Tractor
2	Jan	1.0	Disk	150	Offset Disk, 18'						Tractor
3	Jan	1.0	Landplane	150	Landplane 12' X 45'						Tractor
4	Jan	1.0	Apply Herb. & Incorporate	150	Dbl. Offset Disk, 16' Saddle Tk Sprayer, 2 Tk		Trifluralin	1.20 Pt	30.06 Ga		Tractor
5	Jan	1.0	List	125	Lister, 7 Bottom						Tractor
6	Jan	5.0	Buck Rows	80	Rowbuck, 10'						Tractor
7	Feb	1.0	Preirrigate				Water, District	12.00 AI	0.00 AF		Irrigator
8	Feb	5.0	Disk Ends	80	Tandem Disk, 12'						Tractor
9	Mar	1.0	Mulch	100	Power Mulcher, 6 Rw						Tractor
10	Mar	1.0	Plant	100	Bed Shaper, 6 Rw Planter, 6 Row		Pima Cotton Sd + F	12.00 Lb	60.00 CW		Tractor
11	Mar	1.0	Remove Cap	80	Section Harrow, 4 Secti						Tractor
12	May	3.0	Cultivate	100	Rolling Cultivator, 6 R						Tractor
13	May	2.0	Apply Fert/Ground	100	Fert. Side Dress Unit,		46-00-00, Urea 46	130.00 Lb	355.00 Tn		Tractor
14	May	10.0	Irrigate				Water, District	6.00 AI	0.00 AF		Irrigator
15	Jun	4.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Chlorpyrifos	1.50 Pt	44.73 Ga	6.00 Ac	
16	Jun	1.0	Apply Growth Regulator		CST Air Spray, 3 Gal Mi		Mepiquat Chloride	0.50 Pt	103.28 Ga	6.00 Ac	
17	Jul	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Oxamyl	1.50 Pt	66.19 Ga	6.00 Ac	
18	Jul	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Pyriproxyfen	8.00 Oz	560.00 Ga	6.00 Ac	
19	Jul	1.0	Apply Herbicide/Ground	100	Directed Spray Rig, 8 Rolling Cultivator, 6 R		Prometryn	2.50 Pt	30.00 Ga		Tractor
20	Jul	1.0	Hand Weeding								Hand Weed
21	Aug	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Methidathion	3.00 Pt	48.80 Ga	6.00 Ac	
22	Aug	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Buprofezin	0.50 Lb	50.00 Lb	6.00 Ac	
23	Aug	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mi		Methomyl	1.00 Pt	47.16 Ga	6.00 Ac	
24	Aug	1.0	Apply Defoliant/Air		CST Air Spray, 5 Gal Mi		Thidiazuron/diuron	9.50 Oz	199.00 Ga	8.32 Ac	
25	Sep	1.0	Apply Defoliant/Air		CST Air Spray, 5 Gal Mi		Sodium Chlorate	2.00 Ga	6.08 Ga	8.32 Ac	
26	Oct	1.0	Prepare Ends	100	Offset Disk, 13.5'						Tractor
27	Oct	1.0	Cotton, First Pick		Cotton Picker, 2 Row						Harvest
28	Oct	1.0	Cotton, Make Modules	80	Module Builder						Tractor
29	Nov	0.8	Cotton, Second Pick		Cotton Picker, 2 Row						Harvest
30	Nov	1.0	Cotton, Rood	80	Rood, 3 Row W/Basket Cl						Tractor
31	Oct	1.0	Haul, Custom		CST Haul Cotton Modules					0.00 Mu	
32	Oct	1.0	Cotton Ginning		CST Gin Pima Cotton					4.00 Cs	
33	Dec	1.0	Cotton Classing		CST Class Cotton, HVI					1.50 Ba	
34	Dec	1.0	Crop Assessment		CST Pima (Low Elev)					6.60 Ba	
35	Dec	1.0	Cut Stalks	100	Rotary Stalk Cutter, 4						Tractor
36	Dec	1.0	Disk Residue Pickup Use 60 Mi/Ac	100	Offset Disk, 13.5' Pickup Truck, 1/2 Ton						Tractor

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

** A water assessment charge of \$20.34/Acre included as ownership cost in Table 8B.