

Table 8A. Income and Cash Operating Summary; Pima (ELS) Cotton, 1998

COUNTY: Pima FARM: Pima County 98 WATER SOURCE: Cortaro-Marana TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 529.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/5/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME	Lint	Pound	529.00	\$1.03	\$544.87	\$607.66
	CottonSeed	Ton	0.47	\$133.60	\$62.79	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
	Paid Labor (including benefits)					62.99
	Tractor/Self Propelled				31.94	
	Hand				6.49	
	Irrigation				24.57	
	Chemicals and Custom Applications					171.15
	Fertilizer				34.66	
	Insecticide				86.47	
	Herbicide				31.65	
	Other Chemicals				18.37	
	Farm Machinery and Vehicles					46.78
	Diesel Fuel				15.56	
	Repairs and Maintenance				31.22	
	Irrigation Water (excluding labor)					120.00
	Water Assessment (See Note Below) **					
	Other Purchased Inputs &					14.06
	Seed/Transplants				8.06	
	Other Services and Rentals				6.00	
	TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					414.97
CASH HARVEST AND POST HARVEST EXPENSES						
	Paid Labor (including benefits)					7.33
	Tractor/Self Propelled				3.91	
	Other/Contract				3.41	
	Chemicals and Custom Applications					33.18
	Other Chemicals				33.18	
	Farm Machinery and Vehicles					36.67
	Diesel Fuel				4.09	
	Repairs and Maintenance				32.58	
	Custom Harvest/Post Harvest					4.44
	Cotton Ginning					58.35
	Crop Assessment					4.84
	Other Materials					0.70
	TOTAL HARVEST AND POST HARVEST EXPENSE					145.51
OPERATING OVERHEAD	PICKUP USE					14.82
OPERATING INTEREST AT 10.0%						19.85
	TOTAL CASH OPERATING EXPENSES					\$595.15
	RETURNS OVER CASH OPERATING EXPENSES					\$12.51

Notes: The above figures do not include ownership costs, see table B for detailed cost allocation.

** A water assessment charge of \$40.00 per Acre is included as an ownership cost in Table B.

Table 8B. Allocations of Ownership Costs; Pima (ELS) Cotton, 1998

COUNTY: Pima FARM: Pima County 98 WATER SOURCE: Cortaro-Marana TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 529.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/5/99

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$1.03 / Lb	\$607.66		\$607.66	
TOTAL OPERATING EXPENSES	\$595.15		\$595.15	
RETURN OVER CASH OPERATING EXPENSES		\$12.51		\$12.51
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	8.26		8.26	
General and Office Overhead (5.0% of Total Operating Exp.)	29.76		29.76	
General Farm Maintenance (3.0% of Total Operating Exp.)	17.85		17.85	
Total Cash Overhead Expenses	55.87		55.87	
Total Cash Operating and Overhead Cost	651.02		651.02	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		(\$43.36)		(\$43.36)
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			56.74	
Interest on Equity, Machinery and Vehicles			24.47	
Total Capital Allocations			81.21	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		(\$43.36)		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$124.57)
Land Cost / Ownership (100% Equity)				
Property Taxes (\$540.00 X 16.0% X 0.183)	15.87		15.87	
Opportunity Interest on Land (100% X 6.0 X \$540.00)			32.40	
Water Assessment	40.00		40.00	
Total Land Costs	55.87		88.27	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$99.23)		
RETURNS TO MANAGEMENT AND RISK ----->				(\$212.84)
Management Services (8% of Total Operation Expenses)			47.61	
TOTAL OWNERSHIP COST	111.74		272.96	
TOTAL COST	\$706.90		\$868.11	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$99.23)		
RETURNS TO RISK (PROFITS) ----->				(\$260.45)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$1.01		\$1.01
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.21		\$0.52
BREAK-EVEN PRICE TO COVER TOTAL COST		\$1.22		\$1.52

Table 8C. Variable Operating Costs; Pima (ELS) Cotton, 1998

COUNTY: Pima FARM: Pima County 98 WATER SOURCE: Cortaro-Marana TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 529.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/5/99

No.	First Month	Operation	---- Hours * ----		---- Operating Costs (\$/ACRE *) Per Operation ----					Tot. Cash Expenses	Class	
			Machine	Labor	Fuel/Rps.	Labor	Cust/Serv.	Materials	Total			Times
1	Jan	Rip	0.360	0.400	5.13	3.28			8.41	0.5	4.20	L
2	Jan	Plow	0.400	0.444	6.95	3.64			10.59	1.0	10.59	L
3	Jan	Landplane	0.257	0.286	3.70	2.34			6.04	1.0	6.04	L
4	Jan	Disk	0.225	0.250	3.78	2.05			5.82	1.0	5.82	L
5	Jan	Apply Herbicide/Ground	0.150	0.167	2.23	1.37		13.46	17.06	1.0	17.06	G
6	Jan	List	0.180	0.200	2.67	1.64			4.30	1.0	4.30	L
7	Jan	Disk Ends	0.011	0.013	0.19	0.11			0.30	5.0	1.48	G
8	Jan	Buck Rows	0.022	0.025	0.11	0.20			0.32	4.0	1.27	G
9	Jan	Preirrigate		0.900		6.14		30.00	36.14	1.0	36.14	G
10	Mar	Mulch	0.300	0.333	5.43	2.73			8.16	1.0	8.16	L
11	Apr	Plant	0.225	0.250	2.66	2.05		8.06	12.77	1.0	12.77	L
12	Apr	Remove Cap	0.129	0.143	1.42	1.17			2.59	1.0	2.59	G
13	Apr	Cultivate	0.300	0.333	1.97	2.73			4.69	1.0	4.69	G
14	Jun	Cultivate	0.164	0.182	1.08	1.49			2.57	3.0	7.70	G
15	Jun	Hand Weeding		2.000		12.97			12.97	0.5	6.49	G
16	Jun	Field Scouting					6.00		6.00	1.0	6.00	G
17	Jun	Irrigate/Run Fertilizer		0.450		3.07		26.55	29.62	3.0	88.87	G
18	Jun	Irrigate		0.450		3.07		15.00	18.07	3.0	54.21	G
19	Jul	Apply Herbicide/Ground	0.225	0.250	3.75	2.05		18.19	23.99	1.0	23.99	G
20	Aug	Apply Insecticide/Air					4.75	14.55	19.30	1.0	19.30	G
21	Jul	Apply Growth Regulator					4.23	14.14	18.37	1.0	18.37	G
22	Aug	Apply Insecticide/Air					4.75	12.04	16.79	4.0	67.17	G
23	Oct	Apply Defoliant/Air					4.75	28.43	33.18	1.0	33.18	H
24	Oct	Cotton, First Pick	0.450	0.500	31.05	3.41			34.46	1.0	34.46	H
25	Oct	Cotton, Make Modules	0.250	0.278	2.98	2.28		0.70	5.95	1.0	5.95	H
26	Oct	Haul, Custom .1 Mu					3.11		3.11	1.0	3.11	H
27	Oct	Cotton Ginning 15.6 Cs					58.35		58.35	1.0	58.35	P
28	Dec	Cotton Classing 1.1 Ba					1.33		1.33	1.0	1.33	M
29	Dec	Crop Assessment 1.1 Ba					4.84		4.84	1.0	4.84	M
30	Dec	Cut Stalks 1.1 Ba	0.180	0.200	2.65	1.64			4.28	1.0	4.28	P
31	Dec	Disk Residue 1.1 Ba	0.300	0.333	5.03	2.73			7.76	1.0	7.76	L
		Pickup Use60 Mi/Acre	2.000		14.82						14.82	
		Operating Interest at 10.0					19.85				19.85	
=====												
TOTAL CASH OPERATING EXPENSES (includes all times over):												
595.15 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 \$40.00 per Acre is included as an ownership cost in Table B.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)							
		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%		
Land Preparation (L)	59.65								
Growing (G)	355.32	Yields	\$0.77	\$0.93	\$1.03	\$1.13	\$1.29	Break-even Price	
Harvest (H)	76.70								
Post Harvest (P)	62.63	- 25%	396.8	-253.22	-191.93	-151.06	-110.20	-48.90	1.41
Marketing (M)	6.17	- 10%	476.1	-213.75	-140.19	-91.16	-42.12	31.44	1.22
Operating Overhead (O)	34.67	Budgeted	529.0	-187.44	-105.71	-51.22	3.27	85.00	1.13
		+ 10%	581.9	-161.12	-71.22	-11.28	48.65	138.56	1.05
		+ 25%	661.3	-121.65	-19.49	48.62	116.73	218.89	0.96
Total (T)	\$595.15	Break-even Yield	905.80	691.14	596.85	525.19	445.05		

Table 8D. Resource and Cash Flow Requirements; Pima (ELS) Cotton, 1998

COUNTY: Pima FARM: Pima County 98 WATER SOURCE: Cortaro-Marana TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 529.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/5/99

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)							
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total	
JAN C	0.3	3.6	1.79	9.00	21.36	14.27	13.46			58.09	
FEB C	0.7	8.4	0.70	21.00	0.83	4.85				26.69	
MAR C			0.21		3.45	1.74				5.19	
APR C			0.86		8.22	7.04		8.06		23.32	
MAY C			0.18		1.08	1.49				2.57	
JUN C	2.0	12.0	2.12	30.00	1.38	14.43	11.55			57.36	
JUL C	1.0	6.0	0.92	15.00	5.13	6.92	43.89		10.23	81.16	
AUG C	2.0	12.0	0.92	30.00	0.11	6.35	50.19		14.25	100.89	
SEP C	1.0	6.0	0.45	15.00		3.07	24.09		9.50	51.66	
OCT C			0.09		3.59	0.68	28.43	0.07	10.90	43.66	
NOV C			0.39		17.01	2.84		0.35	30.73	50.93	
DEC C			0.68		18.99	5.33		0.28	30.76	55.35	
JAN N			0.16		2.30	1.31				3.61	
Pickup Use60 Mi/Acre					14.82					14.82	
Operating Interest at 10.0									19.85	19.85	
Water Assessment				**							
Total	7.0	48.0	9.48	120.00	98.27	70.31	171.60	8.76	126.22	595.15	
%				20.13	16.49	11.80	28.79	1.47	21.33	100.00	
TOTAL RESOURCE REQUIREMENTS (per Acre)				TOTAL ENERGY REQUIREMENTS (per Acre)							
Total N		122.1		Diesel Fuel		29.0	Gal				
Total P		0.0		Unleaded Gas		6.0	Gal				
Total K		0.0		All Direct Energy		4.8	M BTU				
Total Labor		9.5									
Total Water		48.0									
EQUIPMENT REQUIREMENTS (per Acre)											
Cotton Picker, 5 Row		0.45	Hr	Cultivator, Sweep, 6 Rw		0.22	Hr	Directed Spray Rig, 16		0.15	Hr
Landplane 12'X 45'		0.26	Hr	Lister, 7 Bottom		0.18	Hr	Module Builder		0.25	Hr
Moldboard Plow, 5-16 2		0.40	Hr	Offset Disk, 16.5'		0.58	Hr	Pickup Truck, 1/2 Ton		2.00	Hr
Planter, Drill Type, 6 Row		0.22	Hr	Power Mulcher, 6 Rw		0.30	Hr	Rolling Cultivator, 6 Rw		0.79	Hr
Rotary Stalk Cutter, 4 Row		0.18	Hr	Rowbuck, 10'		0.09	Hr	Saddle Tk Sprayer, 2 Tk 8		0.22	Hr
Section Harrow, 3 Section		0.13	Hr	Tractor, 70 PTO HP,		1.11	Hr	Tractor, 80 PTO HP,		0.25	Hr
Tractor, 125 PTO HP		0.13	Hr	Tractor, 150 PTO HP		2.45	Hr	V-Ripper, 5 Shnk		0.18	Hr
MATERIALS REQUIREMENT (per Acre)											
32-00-00, URAN 32, Lqd		34.50	Ga	Acephate		2.00	Lb	Acephate		0.50	Lb
Cyanazine		1.00	Qt	Endosulfan		2.00	Pt	Lambdacyhalothrin		12.80	Oz
Mepiquat Chloride		1.00	Pt	Module Tarps		13.33	C	Pima Cotton Sd + Fung		12.00	Lb
Prometryn		5.00	Pt	Thidiazuron		0.40	Lb	Tribufos		0.95	Pt
Trifluralin		1.00	Pt	Water, District		48.00	Al				
LABOR REQUIREMENT (per Acre)											
Hand Weeders		1.00	Hr	Harvest		0.50	Hr	Irrigators		3.60	Hr
Tractor		4.38	Hr								

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

** A water assessment charge of \$40.00 per Acre is included as an ownership cost in Table B.

Table 8E. Schedule of Operations; Pima (ELS) Cotton, 1998

COUNTY:Pima FARM: Pima County 98 WATER SOURCE: Cortaro-Marana TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 529.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/5/99

First No.	Month	Times	Operation	Equipment/ Custom Oper		Job Rate Acres/Hr	Material Use and Cost				Service Cost \$ / Unit	Labor Type
				HP	Self-Prop./ Implement		Name	Appl. Rate	\$ / Unit			
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, 16.5'	4.00						Tractor
5	Jan	1.0	Apply Herbicide/Ground	150	Directed Spray Rig, 16	6.00	Prometryn	2.50 Pt	31.04 Ga			Tractor
							Trifluralin	1.00 Pt	24.95 Ga			
6	Jan	1.0	List	150	Lister, 7 Bottom	5.00						Tractor
7	Jan	5.0	Disk Ends	150	Offset Disk, 16.5'	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	30.00 AF			Irrigators
10	Mar	1.0	Mulch	150	Power Mulcher, 6 Rw	3.00						Tractor
11	Apr	1.0	Plant	70	Planter, Drill Type, 6 Row	4.00	Pima Cotton Sd + Fung	12.00 Lb	0.64 Lb			Tractor
12	Apr	1.0	Remove Cap	125	Section Harrow, 3 Section	7.00						Tractor
13	Apr	1.0	Cultivate	70	Rolling Cultivator, 6 Rw	3.00						Tractor
14	Jun	3.0	Cultivate	70	Rolling Cultivator, 6 Rw	5.50						Tractor
15	Jun	0.5	Hand Weeding			0.50						Hand
16	Jun	1.0	Field Scouting		CST Scout For Insects						6.00 Ac	
17	Jun	3.0	Irrigate/Run Fertilizer			2.22	Water, District	6.00 AI	30.00 AF			Irrigators
							32-00-00, URAN 32,	11.50 Ga	173.00 Tn			
18	Jun	3.0	Irrigate			2.22	Water, District	6.00 AI	30.00 AF			Irrigators
19	Jul	1.0	Apply Herbicide/Ground	150	Cultivator, Sweep, 6 Rw	4.00	Prometryn	2.50 Pt	31.04 Ga			Tractor
					Saddle Tk Sprayer, 2 Tk 8 Row			Cyanazine1.00	Qt30.50		Ga	
20	Aug	1.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Endosulfan	2.00 Pt	34.80 Ga		4.75 Ac	
							Acephate	0.50 Lb	10.31 Lb			
21	Jul	1.0	Apply Growth Regulator		CST Air Spray, 3 Gal Mix		Mepiquat Chloride	1.00 Pt	107.75 Ga		4.23 Ac	
22	Aug	4.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Lambdacyhalothrin	3.20 Oz	278.75 Ga		4.75 Ac	
							Acephate	0.50 Lb	9.00 Lb			
23	Oct	1.0	Apply Defoliant/Air		CST Air Spray, 5 Gal Mix		Thidiazuron	0.40 Lb	56.16 Lb		4.75 Ac	
							Tribufos	0.95 Pt	38.82 Ga			
24	Oct	1.0	Cotton, First Pick		Cotton Picker, 5 Row	2.00						Harvest
25	Oct	1.0	Cotton, Make Modules		80 Module Builder	3.60	Module Tarps	13.33 C	0.05 CW			Tractor
26	Oct	1.0	Haul, Custom		CST Haul Cotton Modules						35.00Mu	
27	Oct	1.0	Cotton Ginning		CST Gin Pima Cotton						3.75 Cs	
28	Dec	1.0	Cotton Classing		CST Class Cotton, HVI						1.25 Ba	
29	Dec	1.0	Crop Assessment		CST Pima (Low Elev)						4.55 Ba	
30	Dec	1.0	Cut Stalks		150 Rotary Stalk Cutter, 4 Row	5.00						Tractor
31	Dec	1.0	Disk Residue		150 Offset Disk, 16.5'	3.00						Tractor
			Pickup use 60 Mi/Ac		Pickup Truck, 1/2 Ton	0.50						

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