

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

COUNTY: Pinal	FARM: Pinal County Farm	WATER SOURCE: CAID	TILLAGE: Conventional
CROP: Cotton, Pima	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Maricopa	YIELD: 765.0 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	765.00	\$0.9400	\$719.10		
CottonSeed	Ton	0.75	114.6000	85.95	\$805.05	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					61.09	
Tractor/Self Propelled				25.64		
Irrigation				35.45		
Chemicals & Custom Applications					266.69	
Fertilizers				23.55		
Insecticides				215.79		
Herbicides				14.58		
Other Chemicals				12.78		
Farm Machinery and Vehicles					26.44	
Diesel Fuel				11.42		
Repairs & Maint.				15.02		
Irrigation Water (excluding labor)					171.00	
Water Assessment (See Note Below) **					**	
Other Purchased Inputs & Services					7.56	
Seed/Transplants				7.56		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					532.78	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					27.92	
Tractor/Self Propelled				12.42		
Other/Contract				15.50		
Chemicals & Custom Applications					44.92	
Other Chemicals				44.92		
Farm Machinery and Vehicles					69.17	
Diesel Fuel				12.42		
Repairs & Maint.				56.75		
Custom Harvest/Post Harvest					2.30	
Cotton Ginning					90.00	
Crop Assessments					10.14	
Other Materials					2.76	
TOTAL HARVEST AND POST HARVEST EXPENSE					247.21	
OPERATING OVERHEAD->PICKUP USE					15.38	
OPERATING INTEREST AT 8.0%					19.67	
TOTAL CASH OPERATING EXPENSES					\$815.04	
RETURNS OVER CASH OPERATING EXPENSES					(\$9.99)	

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

** A water assessment charge of \$18.75/Acre is included in the ownership costs of Table 8B.

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

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 765.0 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	\$805.05		\$805.05	
TOTAL OPERATING EXPENSES	815.03		815.03	
RETURN OVER CASH OPERATING EXPENSES		(\$9.98)		(\$9.98)
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	9.37		9.37	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	40.75		40.75	
General Farm Maint. (3% of Tot. Oper. Exp.)	24.45		24.45	
Total Cash Overhead Expenses	<u>74.57</u>		<u>74.57</u>	
Total Cash Oper. & Over. Cost	889.60		889.60	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		(84.55)		(84.55)
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			69.33	
Interest on Equity, Machinery & Vehicles			28.02	
Total Capital Allocations			<u>97.34</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		>(84.55)		
RETURNS TO LAND, MANAGEMENT & RISK				>(181.90)
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$372 X 16% X .16455)	9.79		9.79	
Opport. Inter. on Land (100% X 6.0% X \$372)			22.32	
Water Assessment **	18.75		18.75	
Total Land Costs	<u>28.54</u>		<u>50.86</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		>(113.10)		
RETURNS TO MANAGEMENT & RISK				>(232.76)
Management Services (8% of Tot. Oper. Exp.)			65.20	
TOTAL OWNERSHIP COST	<u>103.11</u>		<u>287.98</u>	
TOTAL COST	<u>\$918.15</u>		<u>\$1,103.02</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		>(\$113.10)		
RETURN TO RISK (PROFITS)				>(\$297.97)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)				
		\$0.9530		\$0.9530
BREAK-EVEN PRICE TO COVER OWNERSHIP COST				
		\$0.1347		\$0.3764
BREAK-EVEN PRICE TO COVER TOTAL COST				
		\$1.0878		\$1.3295

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

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 765.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)					Times	Tot. Cash	
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials	Total		Expense	Class
1	Jan	Disk	0.225	0.250	2.54	2.10			4.64	1.0	4.64	L
2	Jan	Plow	0.300	0.333	3.95	2.80			6.75	1.0	6.75	L
3	Jan	Landplane	0.257	0.286	2.41	2.41			4.82	0.7	3.37	L
4	Jan	Laser Level	0.300	0.333	2.63	2.80			5.43	0.3	1.63	L
5	Jan	List	0.180	0.200	1.82	1.68			3.50	1.0	3.50	L
6	Jan	Buck Rows	0.022	0.025	0.13	0.21			0.34	3.0	1.01	G
7	Jan	Preirrigate		1.124		7.88		38.00	45.88	1.0	45.88	G
8	Mar	Apply Herbicide/ NOT FOUND						4.73	4.73	1.0	4.73	G
9	Mar	Mulch	0.300	0.333	3.30	2.80			6.10	1.0	6.10	L
10	Mar	Plant	0.225	0.250	2.33	2.10		7.56	11.99	1.0	11.99	L
11	Mar	Remove Cap	0.129	0.143	0.72	1.20			1.92	1.0	1.92	G
12	Apr	Disk Ends	0.022	0.025	0.25	0.21			0.46	3.0	1.37	G
13	Apr	Cultivate	0.300	0.333	1.98	2.80			4.78	1.0	4.78	G
14	May	Irrigate/Run Fertilizer		0.562		3.94		30.77	34.71	2.0	69.42	G
15	Jun	Irrigate		0.562		3.94		19.00	22.94	5.0	114.70	G
16	May	Cultivate	0.164	0.182	1.08	1.53			2.61	2.0	5.23	G
17	Jun	Apply Insecticide/Air						6.00	7.68	4.0	54.72	G
18	Jun	Apply Growth Regulator						6.00	6.78	1.0	12.78	G
19	Jul	Apply Insecticide/Air						6.00	36.75	1.0	42.75	G
20	Jul	Apply Insecticide/Air						6.00	13.03	1.0	19.03	G
21	Jul	Apply Herbicide/Ground	0.129	0.143	1.48	1.20			9.84	1.0	12.52	G
22	Aug	Apply Insecticide/Air						6.00	19.21	1.0	25.21	G
23	Aug	Apply Insecticide/Air						6.00	26.25	1.0	32.25	G
24	Aug	Apply Insecticide/Air						6.00	6.19	1.0	12.19	G
25	Sep	Apply Insecticide/Air						6.00	23.62	1.0	29.62	G
26	Oct	Apply Defoliant/Air						8.32	15.51	1.0	23.83	H
27	Oct	Apply Defoliant/Air						8.32	12.77	1.0	21.09	H
28	Oct	Cotton, First Pick	0.900	1.000	34.18	7.01			41.19	1.0	41.19	H
29	Oct	Cotton, Make Modules	0.300	0.666	3.84	5.13		1.18	10.15	1.0	10.15	H

* NOTES: See next page for notes.

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

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 765.0 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, Second Pick	0.600	0.667	22.79	4.67			27.46	0.9	24.71	H
31	Nov	Cotton, Rood	0.300	0.333	2.95	2.80			5.75	2.0	11.49	H
32	Nov	Cotton, Make Modules	0.250	0.556	3.20	4.29		1.58	9.07	1.0	9.07	H
33	Oct	Haul, Custom 0.1 Mu							0.00	1.0	0.00	H
34	Oct	Cotton Ginning 22.5 Cs						90.00	90.00	1.0	90.00	P
35	Dec	Cotton Classing 1.5 Ba						2.30	2.30	1.0	2.30	M
36	Dec	Crop Assessment 1.5 Ba						10.14	10.14	1.0	10.14	M
37	Dec	Cut Stalks	0.180	0.200	1.55	1.68			3.23	1.0	3.23	P
38	Dec	Disk Residue	0.225	0.250	2.54	2.10			4.64	1.0	4.64	L
		Pickup Use 60 Mi/Ac	2.000		15.37						15.37	O
		Operating Interest at 8.00%						17.75			17.75	O
TOTAL CASH OPERATING EXPENSES:					\$110.99	\$89.00	\$202.83	\$410.26			\$813.08	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 \$18.75/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%	
Land Preparation (L)	\$42.63								
Growing (G)	490.11								
Harvest (H)	141.53	Yields		\$0.70	\$0.84	\$0.94	\$1.03	\$1.17	Break-even
Post Harvest (P)	93.23								
Marketing (M)	12.44	-25%	573.7	-346.78	-265.88	-211.95	-158.02	-77.12	1.30
Operating Overhead (O)	33.12	-10%	688.5	-302.96	-205.88	-141.16	-76.45	20.62	1.14
		Budgeted	765.0	-273.75	-165.89	-93.98	-22.07	85.79	1.06
Total (T)	\$813.08	+10%	841.5	-244.54	-125.89	-46.79	32.30	150.96	0.99
		+25%	956.2	-200.72	-65.89	23.99	113.87	248.71	0.91
		Break-even Yield		1,481.91	1,082.27	917.35	796.04	664.28	

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COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 765.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						Total
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	
JAN C	0.3	3.6	1.33	11.40	9.94	10.74				32.08
FEB C	0.5	6.0	0.67	19.00	0.97	4.88				24.86
MAR C	0.2	2.4	0.58	7.60	3.18	4.63	2.37	3.78		21.56
APR C			0.74		5.54	6.27	2.37	3.78		17.96
MAY C	1.0	6.0	0.74	19.00	1.08	5.47	11.77			37.32
JUN C	2.0	12.0	1.30	38.00	1.08	9.41	26.23		12.00	86.72
JUL C	2.0	12.0	1.31	38.00	1.85	9.50	74.99		24.00	148.34
AUG C	1.0	6.0	0.56	19.00		3.94	59.33		24.00	106.27
SEP C	1.0	6.0	0.56	19.00		3.94	39.13		14.32	76.39
OCT C			1.02		23.06	7.50	12.77	0.71	53.32	97.35
NOV C			1.61		31.15	12.14		1.26	36.00	80.54
DEC C			1.25		16.99	9.97		0.79	21.44	49.19
JAN N			0.07		0.76	0.63				1.39
Pickup Use 60 Mi/Ac					15.37					15.37
Operating Interest at 8.0%									17.75	17.75
Water Assessment				**						
Total	8.0	54.0	11.79	171.00	110.99	89.01	228.96	10.32	202.83	813.11
%				21.03	13.64	10.94	28.16	1.26	24.94	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	106.6 lbs	Diesel Fuel	25.0 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		
Total Water	54.0 AI	All Direct Energy	4.2 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 100 PTO HP, MFWD	1.87 Hrs	Offset Disk, 13.5'	0.52 Hrs
Landplane 12' X 45'	0.18 Hrs	Drag Scraper, 10'	0.09 Hrs
Laser Trailer	0.09 Hrs	Lister, 7 Bottom	0.18 Hrs
Rowbuck, 10'	0.07 Hrs	Power Mulcher, 4 Rw	0.30 Hrs
Section Harrow, 3 Section	0.13 Hrs	Rolling Cultivator, 4 Rw	0.63 Hrs
Saddle Tk Sprayer, 2 Tk 8 Row	0.13 Hrs	Cotton Picker, 2 Row	1.44 Hrs
Module Builder	0.55 Hrs	Rood, 3 Row W/Basket Cleaner	0.60 Hrs
Pickup Truck, 1/2 Ton	2.00 Hrs		
		Moldboard Plow, 5-16 2 Way	0.30 Hrs
		Laser Receiver, Mast System	0.09 Hrs
		Tractor, 70 PTO HP, MFWD	1.65 Hrs
		Planter, 4 Row	0.23 Hrs
		Rolling Cultivator, 6 Rw	0.13 Hrs
		Tractor, 80 PTO HP, MFWD	0.55 Hrs
		Rotary Stalk Cutter, 2 Row	0.18 Hrs

MATERIALS REQUIREMENTS (/Acre)			
Water, District	54.00 AI	Trifluralin	1.20 Pt
82-00-00, Anhyd. Ammonia	130.00 Lb	Chlorpyrifos	6.00 Pt
Pyriproxyfen	8.00 Oz	Oxamyl	1.50 Pt
Methidathion	3.00 Pt	Buprofezin	0.50 Lb
Fenpropathrin	8.00 Oz	Methyl Parathion	4.00 Pt
Sodium Chlorate	2.00 Ga	Module Tarps	52.50 CW
		Pima Cotton Sd + Fung	12.00 Lb
		Mepiquat Chloride	0.50 Pt
		Prometryn	2.50 Pt
		Methomyl	1.00 Pt
		Thidiazuron/diuron	9.50 Oz

LABOR REQUIREMENTS (/Acre)			
Tractor	4.53 Hrs	Irrigators	5.06 Hrs
Other	0.61 Hrs	Harvest	1.60 Hrs

* NOTE: P = Previous Year C = Current Year N = Next Year
 ** A water assessment charge of \$18.75/Acre included as ownership cost in Table 8B.

Table 8E. Schedule of Operations; Pima (ELS) Cotton, 1996

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 765.0 Lb/Acre PREVIOUS CROP: Cotton, Pima DATE: 10/08/96

No.	Month	Times	Operation	Equipment/Custom Oper. HP Self-Prop./Implem.	Job Rate Acres/Hr	Material Use & Cost			Service Cost \$/Unit	Labor Type
						Name	Appl. Rate	\$/Unit		
1	Jan	1.0	Disk	100 Offset Disk, 13.5'	4.00					Tractor
2	Jan	1.0	Plow	100 Moldboard Plow, 5-16 2	3.00					Tractor
3	Jan	0.7	Landplane	100 Landplane 12'X 45'	3.50					Tractor
4	Jan	0.3	Laser Level	100 Drag Scraper, 10' Laser Receiver, Mast Sy Laser Trailer	3.00					Tractor
5	Jan	1.0	List	100 Lister, 7 Bottom	5.00					Tractor
6	Jan	3.0	Buck Rows	70 Rowbuck, 10'	40.00					Tractor
7	Jan	1.0	Preirrigate		0.89	Water, District	12.00 AI	38.00 AF		Irrigator
8	Mar	1.0	Apply Herbicide/Groun	CST		Trifluralin	1.20 Pt	30.06 Ga	0.00	
9	Mar	1.0	Mulch	100 Power Mulcher, 4 Rw	3.00					Tractor
10	Mar	1.0	Plant	70 Planter, 4 Row	4.00	Pima Cotton Sd + F	12.00 Lb	60.00 CW		Tractor
11	Mar	1.0	Remove Cap	70 Section Harrow, 3 Secti	7.00					Tractor
12	Apr	3.0	Disk Ends	100 Offset Disk, 13.5'	40.00					Tractor
13	Apr	1.0	Cultivate	70 Rolling Cultivator, 4 R	3.00					Tractor
14	May	2.0	Irrigate/Run Fertiliz		1.78	Water, District	6.00 AI	38.00 AF		Irrigator
						82-00-00, Anhyd. A	65.00 Lb	345.00 Tn		
15	Jun	5.0	Irrigate		1.78	Water, District	6.00 AI	38.00 AF		Irrigator
16	May	2.0	Cultivate	70 Rolling Cultivator, 4 R	5.50					Tractor
17	Jun	4.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Chlorpyrifos	1.50 Pt	39.03 Ga	6.00 Ac	
18	Jun	1.0	Apply Growth Regulato	CST Air Spray, 3 Gal Mi		Mepiquat Chloride	0.50 Pt	103.28 Ga	6.00 Ac	
19	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Pyriproxyfen	8.00 Oz	560.00 Ga	6.00 Ac	
20	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Oxamyl	1.50 Pt	66.19 Ga	6.00 Ac	
21	Jul	1.0	Apply Herbicide/Groun	100 Rolling Cultivator, 6 R Saddle Tk Sprayer, 2 Tk	7.00	Prometryn	2.50 Pt	30.00 Ga		Tractor
22	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Methidathion	3.00 Pt	48.80 Ga	6.00 Ac	
23	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Buprofezin	0.50 Lb	50.00 Lb	6.00 Ac	
24	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Methomyl	1.00 Pt	47.16 Ga	6.00 Ac	
25	Sep	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Fenpropathrin	8.00 Oz	171.54 Ga	6.00 Ac	
						Methyl Parathion	4.00 Pt	23.54 Ga		
26	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mi		Thidiazuron/diuron	9.50 Oz	199.00 Ga	8.32 Ac	
27	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mi		Sodium Chlorate	2.00 Ga	6.08 Ga	8.32 Ac	
28	Oct	1.0	Cotton, First Pick	Cotton Picker, 2 Row	1.00					Harvest
29	Oct	1.0	Cotton, Make Modules	80 Module Builder	3.00	Module Tarps	22.50 CW	0.05 CW		Tractor Other
30	Nov	0.9	Cotton, Second Pick	Cotton Picker, 2 Row	1.50					Harvest
31	Nov	2.0	Cotton, Rood	70 Rood, 3 Row W/Basket Cl	3.00					Tractor
32	Nov	1.0	Cotton, Make Modules	80 Module Builder	3.60	Module Tarps	30.00 CW	0.05 CW		Tractor Other
33	Oct	1.0	Haul, Custom	CST Haul Cotton Modules					0.00 Mu	
34	Oct	1.0	Cotton Ginning	CST Gin Pima Cotton					4.00 Cs	
35	Dec	1.0	Cotton Classing	CST Class Cotton, HVI					1.50 Ba	
36	Dec	1.0	Crop Assessment	CST Pima (Low Elev)					6.60 Ba	
37	Dec	1.0	Cut Stalks	100 Rotary Stalk Cutter, 2	5.00					Tractor

NOTES at the bottom of the next page.

Table 8E. Schedule of Operations; Pima (ELS) Cotton, 1996

COUNTY: Pinal	FARM: Pinal County Farm	WATER SOURCE: CAID	TILLAGE: Conventional
CROP: Cotton, Pima	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Maricopa	YIELD: 765.0 Lb/Acre	PREVIOUS CROP: Cotton, Pima	DATE: 10/08/96

No.	Month	First Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	Material Use & Cost		Service Cost \$/Unit	Labor \$/Unit	Type
				HP	Self-Prop./Implem.		Name	Appl. Rate			
38	Dec	1.0	Disk Residue	100	Offset Disk, 13.5'	4.00					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.

** A water assessment charge of \$18.75/Acre included as ownership cost in Table 8B.

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