

Table 11A. Income and Cash Operating Summary; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME	Lint	Pound	792.00	\$1.03	\$815.76	\$910.62
	CottonSeed	Ton	0.71	\$133.60	\$94.86	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					63.32	
Tractor/Self Propelled					24.97	
Irrigation					38.35	
Chemicals and Custom Applications					209.85	
Fertilizer					21.84	
Insecticide					154.14	
Herbicide					22.50	
Other Chemicals					11.37	
Farm Machinery and Vehicles					30.11	
Diesel Fuel					11.06	
Repairs and Maintenance					19.05	
Irrigation Water (excluding labor)					180.00	
Water Assessment (See Note Below) **						
Other Purchased Inputs & Seed/Transplants					8.14	8.14
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					491.41	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					27.18	
Tractor/Self Propelled					12.09	
Other/Contract					15.09	
Chemicals and Custom Applications					28.20	
Other Chemicals					28.20	
Farm Machinery and Vehicles					73.04	
Diesel Fuel					10.17	
Repairs and Maintenance					62.87	
Custom Harvest/Post Harvest					6.65	
Cotton Ginning					87.35	
Crop Assessment					7.24	
Other Materials					2.78	
TOTAL HARVEST AND POST HARVEST EXPENSE					232.45	
OPERATING OVERHEAD PICKUP USE					15.41	
OPERATING INTEREST AT 10.0%					16.55	
TOTAL CASH OPERATING EXPENSES					\$755.82	
RETURNS OVER CASH OPERATING EXPENSES					\$154.79	

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

** A water assessment charge of \$19.80 per Acre is included as an ownership cost in Table B.

Table 11B. Allocations of Ownership Costs; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

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	\$910.62		\$910.62	
TOTAL OPERATING EXPENSES	\$755.82		\$755.82	
RETURN OVER CASH OPERATING EXPENSES		\$154.79		\$154.79
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	10.35		10.35	
General and Office Overhead (5.0% of Total Operating Exp.)	37.79		37.79	
General Farm Maintenance (3.0% of Total Operating Exp.)	22.67		22.67	
Total Cash Overhead Expenses	70.82		70.82	
Total Cash Operating and Overhead Cost	826.64		826.64	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$83.98		\$83.98
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			76.86	
Interest on Equity, Machinery and Vehicles			30.86	
Total Capital Allocations			107.73	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$83.98		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$23.75)
Land Cost / Ownership (100% Equity)				
Property Taxes (\$447.00 X 16.0% X 0.169)	12.15		12.15	
Opportunity Interest on Land (100% X 6.0 X \$447.00)			26.82	
Water Assessment	19.80		19.80	
Total Land Costs	31.95		58.77	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$52.03		
RETURNS TO MANAGEMENT AND RISK ----->				(\$82.52)
Management Services (8% of Total Operation Expenses)			60.47	
TOTAL OWNERSHIP COST	102.77		297.78	
TOTAL COST	\$858.59		\$1,053.60	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$52.03		
RETURNS TO RISK (PROFITS) ----->				(\$142.98)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.83		\$0.83
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.13		\$0.38
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.96		\$1.21

Table 11C. Variable Operating Costs; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

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	Disk	0.225	0.250	3.92	2.05			5.97	1.0	5.97	L
2	Jan	Plow	0.300	0.333	5.42	2.73			8.14	1.0	8.14	L
3	Jan	Landplane	0.257	0.286	2.18	2.34			4.52	0.7	3.17	L
4	Jan	Laser Level	0.300	0.333	2.20	2.73			4.92	0.3	1.48	L
5	Jan	List	0.180	0.200	1.60	1.64			3.24	1.0	3.24	L
6	Jan	Apply Herbicide/Ground					8.25	3.97	12.22	1.0	12.22	G
7	Jan	Buck Rows	0.022	0.025	0.12	0.20			0.32	3.0	0.97	G
8	Jan	Preirrigate		1.124		7.67		36.00	43.67	1.0	43.67	G
9	Mar	Mulch	0.300	0.333	3.01	2.73			5.73	1.0	5.73	L
10	Mar	Plant	0.225	0.250	2.44	2.05		8.14	12.63	1.0	12.63	L
11	Mar	Remove Cap	0.129	0.143	0.66	1.17			1.83	1.0	1.83	G
12	Apr	Disk Ends	0.022	0.025	0.23	0.20			0.43	3.0	1.29	G
13	Apr	Cultivate	0.300	0.333	1.89	2.73			4.62	1.0	4.62	G
14	May	Irrigate/Run Fertilizer		0.562		3.84		28.92	32.76	2.0	65.51	G
15	Jun	Irrigate		0.562		3.84		18.00	21.83	6.0	131.01	G
16	May	Cultivate	0.164	0.182	1.03	1.49			2.52	2.0	5.05	G
17	Jun	Apply Growth Regulator					4.23	7.14	11.37	1.0	11.37	G
18	Jul	Apply Insecticide/Air					4.23	37.10	41.33	1.0	41.33	G
19	Jul	Apply Insecticide/Air					4.23	13.16	17.39	1.0	17.39	G
20	Jul	Apply Herbicide/Ground	0.129	0.143	1.95	1.17		10.28	13.40	1.0	13.40	G
21	Aug	Apply Insecticide/Air					4.23	19.40	23.63	1.0	23.63	G
22	Aug	Apply Insecticide/Air					4.23	26.50	30.73	1.0	30.73	G
23	Aug	Apply Insecticide/Air					4.23	6.50	10.73	1.0	10.73	G
24	Sep	Apply Insecticide/Air					4.23	26.10	30.33	1.0	30.33	G
25	Oct	Apply Defoliant/Air					4.75	15.74	20.49	1.0	20.49	H
26	Oct	Apply Defoliant/Air					4.75	2.97	7.72	1.0	7.72	H
27	Oct	Cotton, First Pick	0.900	1.000	36.54	6.82			43.36	1.0	43.36	H
28	Oct	Cotton, Make Modules	0.300	0.666	3.67	5.00		1.19	9.86	1.0	9.86	H
29	Nov	Cotton, Second Pick	0.600	0.667	24.36	4.55			28.91	0.9	26.02	H
30	Nov	Cotton, Rood	0.300	0.333	2.80	2.73			5.52	2.0	11.05	H
31	Nov	Cotton, Make Modules	0.250	0.556	3.06	4.17		1.59	8.82	1.0	8.82	H
32	Oct	Haul, Custom .1 Mu					4.66		4.66	1.0	4.66	H
33	Oct	Cotton Ginning 23.3 Cs					87.35		87.35	1.0	87.35	P
34	Dec	Cotton Classing 1.6 Ba					1.99		1.99	1.0	1.99	M
35	Dec	Crop Assessment 1.6 Ba					7.24		7.24	1.0	7.24	M
36	Dec	Cut Stalks 1.6 Ba	0.180	0.200	2.26	1.64			3.90	1.0	3.90	P
37	Dec	Disk Residue 1.6 Ba	0.225	0.250	3.92	2.05			5.97	1.0	5.97	L
		Pickup Use60 Mi/Acre	2.000		15.41				15.41		15.41	
		Operating Interest at 10.0					16.55		16.55		16.55	
=====												
TOTAL CASH OPERATING EXPENSES (includes all times over):												
755.82 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 \$19.80 per Acre is included as an ownership cost in Table B.

Table 11C. Variable Operating Costs; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

OPERATING COST SUMMARY BY CLASS

Land Preparation (L)	46.33
Growing (G)	445.08
Harvest (H)	131.97
Post Harvest (P)	91.25
Marketing (M)	9.22
Operating Overhead (O)	31.96
	=====
Total (T)	\$755.82

SENSITIVITY OF THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)

Prices		- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields		\$0.77	\$0.93	\$1.03	\$1.13	\$1.29	Break-even Price
- 25%	594.0	-244.57	-152.80	-91.62	-30.44	61.34	1.18
- 10%	712.8	-187.67	-77.54	-4.12	69.30	179.43	1.04
Budgeted	792.0	-149.73	-27.37	54.21	135.79	258.15	0.96
+ 10%	871.2	-111.79	22.81	112.54	202.28	336.88	0.90
+ 25%	990.0	-54.89	98.07	200.04	302.01	454.96	0.83
Break-even Yield		1,104.58	835.20	718.39	630.25	532.29	

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Table 11D. Resource and Cash Flow Requirements; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

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	1.33	10.80	12.39	10.45	3.97		8.25	45.86	
FEB C	0.5	6.0	0.67	18.00	0.86	4.76				23.62	
MAR C	0.2	2.4	0.59	7.20	3.05	4.51		4.07		18.83	
APR C			0.75		5.29	6.11		4.07		15.47	
MAY C	1.0	6.0	0.74	18.00	1.03	5.33	10.92			35.28	
JUN C	2.0	12.0	1.31	36.00	1.03	9.16	18.06		4.23	68.48	
JUL C	2.0	12.0	1.32	36.00	2.30	9.25	60.54		8.46	116.55	
AUG C	2.0	12.0	1.12	36.00		7.67	52.40		12.69	108.76	
SEP C	1.0	6.0	0.56	18.00		3.84	41.84		8.98	72.65	
OCT C			1.02		24.35	7.30	2.97	0.72	50.76	86.09	
NOV C			1.61		32.59	11.82		1.27	36.80	82.48	
DEC C			1.25		19.08	9.71		0.79	18.43	48.00	
JAN N			0.08		1.18	0.61				1.79	
Pickup Use60 Mi/Acre					15.41					15.41	
Operating Interest at 10.0									16.55	16.55	
Water Assessment				**							
Total	9.0	60.0	12.36	180.00	118.56	90.50	190.69	10.92	165.15	755.82	
%				23.82	15.69	11.97	25.23	1.44	21.85	100.00	
TOTAL RESOURCE REQUIREMENTS (per Acre)				TOTAL ENERGY REQUIREMENTS (per Acre)							
Total N		106.6		Diesel Fuel		27.9	Gal				
Total P		0.0		Unleaded Gas		6.0	Gal				
Total K		0.0		All Direct Energy		4.6	M BTU				
Total Labor		12.4									
Total Water		60.0									
EQUIPMENT REQUIREMENTS (per Acre)											
Cotton Picker, 2 Row		1.44	Hr	Drag Scraper, 10'		0.09	Hr	Landplane 12'X 45'		0.18	Hr
Laser, Complete System		0.09	Hr	Lister, 7 Bottom		0.18	Hr	Module Builder		0.55	Hr
Moldboard Plow, 5-16 2		0.30	Hr	Offset Disk, 13.5'		0.07	Hr	Offset Disk, 16.5'		0.45	Hr
Pickup Truck, 1/2 Ton		2.00	Hr	Planter, Drill Type, 4 Row		0.22	Hr	Power Mulcher, 4 Rw		0.30	Hr
Rolling Cultivator, 4 Rw		0.63	Hr	Rolling Cultivator, 6 Rw		0.13	Hr	Rood, 3 Row W/Basket		0.60	Hr
Rotary Stalk Cutter, 2 Row		0.18	Hr	Rowbuck, 10'		0.07	Hr	Saddle Tk Sprayer, 2 Tk 8		0.13	Hr
Section Harrow, 3 Section		0.13	Hr	Tractor, 70 PTO HP,		1.65	Hr	Tractor, 80 PTO HP,		0.55	Hr
Tractor, 100 PTO HP,		0.82	Hr	Tractor, 125 PTO HP		0.31	Hr	Tractor, 150 PTO HP		0.75	Hr
MATERIALS REQUIREMENT (per Acre)											
82-00-00, Anhyd.		130.00	Lb	Buprofezin		0.50	Lb	Fenpropathrin		8.00	Oz
Mepiquat Chloride		0.50	Pt	Methidathion		3.00	Pt	Methomyl		1.00	Pt
Methyl Parathion		4.00	Pt	Module Tarps		52.50	C	Oxamyl		1.50	Pt
Pima Cotton Sd + Fung		12.00	Lb	Prometryn		2.50	Pt	Pyriproxyfen		8.00	Oz
Sodium Chlorate		2.00	Ga	Thidiazuron/diuron		9.50	Oz	Trifluralin		1.20	Pt
Water, District		60.00	Al								
LABOR REQUIREMENT (per Acre)											
Harvest		1.60	Hr	Irrigators		5.62	Hr	Other		0.61	Hr
Tractor		4.53	Hr								

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

** A water assessment charge of \$19.80 per Acre is included as an ownership cost in Table B.

Table 11E. Schedule of Operations; Pima (ELS) Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Pima ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 792.0 Lb / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

First No.	Month	Times	Operation	Equipment/ Custom Oper HP Self-Prop./ Implement	Job Rate Acres/Hr	Material Use and Cost Name	Appl. Rate \$ / Unit	Service Cost \$ / Unit	Labor Type
1	Jan	1.0	Disk	150 Offset Disk, 16.5'	4.00				Tractor
2	Jan	1.0	Plow	150 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, Complete System	3.00				Tractor
5	Jan	1.0	List	100 Lister, 7 Bottom	5.00				Tractor
6	Jan	1.0	Apply Herbicide/Ground	CST Grnd Spray Herb. Preplant		Trifluralin	1.20 Pt 24.95 Ga	8.25 Ac	
7	Jan	3.0	Buck Rows	70 Rowbuck, 10'	40.00				Tractor
8	Jan	1.0	Preirrigate		0.89	Water, District	12.00 Al 36.00 AF		Irrigators
9	Mar	1.0	Mulch	100 Power Mulcher, 4 Rw	3.00				Tractor
10	Mar	1.0	Plant	70 Planter, Drill Type, 4 Row	4.00	Pima Cotton Sd + Fung	12.00 Lb 0.64 Lb		Tractor
11	Mar	1.0	Remove Cap	70 Section Harrow, 3 Section	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 Rw	3.00				Tractor
14	May	2.0	Irrigate/Run Fertilizer		1.78	Water, District	6.00 Al 36.00 AF		Irrigators
						82-00-00, Anhyd.	65.00 Lb 317.00 Tn		
15	Jun	6.0	Irrigate		1.78	Water, District	6.00 Al 36.00 AF		Irrigators
16	May	2.0	Cultivate	70 Rolling Cultivator, 4 Rw	5.50				Tractor
17	Jun	1.0	Apply Growth Regulator	CST Air Spray, 3 Gal Mix		Mepiquat Chloride	0.50 Pt 107.75 Ga	4.23 Ac	
18	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Pyriproxyfen	8.00 Oz 560.00 Ga	4.23 Ac	
19	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Oxamyl	1.50 Pt 66.19 Ga	4.23 Ac	
20	Jul	1.0	Apply Herbicide/Ground	125 Rolling Cultivator, 6 Rw Saddle Tk Sprayer, 2 Tk 8 Row	7.00	Prometryn	2.50 Pt 31.04 Ga		Tractor
21	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Methidathion	3.00 Pt 48.80 Ga	4.23 Ac	
22	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Buprofezin	0.50 Lb 50.00 Lb	4.23 Ac	
23	Aug	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Methomyl	1.00 Pt 49.05 Ga	4.23 Ac	
24	Sep	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Fenprothrin	8.00 Oz 174.00 Ga	4.23 Ac	
						Methyl Parathion	4.00 Pt 27.50 Ga		
25	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mix		Thidiazuron/diuron	9.50 Oz 200.00 Ga	4.75 Ac	
26	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mix		Sodium Chlorate	2.00 Ga 1.40 Ga	4.75 Ac	
27	Oct	1.0	Cotton, First Pick	Cotton Picker, 2 Row	1.00				Harvest
28	Oct	1.0	Cotton, Make Modules	80 Module Builder	3.00	Module Tarps	22.50 C 0.05 CW		Tractor Other
29	Nov	0.9	Cotton, Second Pick	Cotton Picker, 2 Row	1.50				Harvest
30	Nov	2.0	Cotton, Rood	70 Rood, 3 Row W/Basket	3.00				Tractor
31	Nov	1.0	Cotton, Make Modules	80 Module Builder	3.60	Module Tarps	30.00 C 0.05 CW		Tractor Other
32	Oct	1.0	Haul, Custom	CST Haul Cotton Modules				35.00 Mu	
33	Oct	1.0	Cotton Ginning	CST Gin Pima Cotton				3.75 Cs	
34	Dec	1.0	Cotton Classing	CST Class Cotton, HVI				1.25 Ba	
35	Dec	1.0	Crop Assessment	CST Pima (Low Elev)				4.55 Ba	
36	Dec	1.0	Cut Stalks	125 Rotary Stalk Cutter, 2 Row	5.00				Tractor
37	Dec	1.0	Disk Residue	150 Offset Disk, 16.5'	4.00				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.