

Table 13A. Income and Cash Operating Summary; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME	Lint	Pound	1,154.00	\$0.68	\$782.41	\$918.68
	Cottonseed	Ton	1.02	\$133.60	\$136.27	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					47.55	
Tractor/Self Propelled					32.01	
Irrigation					15.54	
Chemicals and Custom Applications					195.69	
Fertilizer					20.50	
Insecticide					135.36	
Herbicide					19.00	
Other Chemicals					20.84	
Farm Machinery and Vehicles					39.35	
Diesel Fuel					14.61	
Repairs and Maintenance					24.74	
Irrigation Water (excluding labor)					144.00	
Water Assessment (See Note Below) **						
Other Purchased Inputs & Seed/Transplants					33.92	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					460.51	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					25.82	
Tractor/Self Propelled					17.56	
Other/Contract					8.27	
Chemicals and Custom Applications					28.20	
Other Chemicals					28.20	
Farm Machinery and Vehicles					70.39	
Diesel Fuel					9.38	
Repairs and Maintenance					61.01	
Custom Harvest/Post Harvest					9.68	
Cotton Ginning					93.34	
Crop Assessment					8.23	
Other Materials					3.18	
TOTAL HARVEST AND POST HARVEST EXPENSE					238.85	
OPERATING OVERHEAD PICKUP USE					15.41	
OPERATING INTEREST AT 10.0%					21.71	
TOTAL CASH OPERATING EXPENSES					\$736.48	
RETURNS OVER CASH OPERATING EXPENSES					\$182.20	

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 13B. Allocations of Ownership Costs; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland 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 \$0.68 / Lb	\$918.68		\$918.68	
TOTAL OPERATING EXPENSES	\$736.48		\$736.48	
RETURN OVER CASH OPERATING EXPENSES		\$182.20		\$182.20
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	11.10		11.10	
General and Office Overhead (5.0% of Total Operating Exp.)	36.82		36.82	
General Farm Maintenance (3.0% of Total Operating Exp.)	22.09		22.09	
Total Cash Overhead Expenses	70.02		70.02	
Total Cash Operating and Overhead Cost	806.50		806.50	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$112.18		\$112.18
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			80.73	
Interest on Equity, Machinery and Vehicles			35.59	
Total Capital Allocations			116.31	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$112.18		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$4.13)
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 ----->		\$80.23		
RETURNS TO MANAGEMENT AND RISK ----->				(\$62.90)
Management Services (8% of Total Operation Expenses)			58.92	
TOTAL OWNERSHIP COST	101.97		304.02	
TOTAL COST	\$838.45		\$1,040.50	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$80.23		
RETURNS TO RISK (PROFITS) ----->				(\$121.82)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.52		\$0.52
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.09		\$0.26
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.61		\$0.78

Table 13C. Variable Operating Costs; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland 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	0.900	1.000	7.64	8.19			15.83	0.7	11.08	L
4	Jan	Laser Level	0.900	1.000	6.59	8.19			14.78	0.3	4.43	L
5	Jan	List	0.180	0.200	2.43	1.64			4.07	1.0	4.07	L
6	Jan	Buck Rows	0.022	0.025	0.12	0.20			0.32	3.0	0.97	G
7	Feb	Preirrigate		0.278		1.90		24.00	25.90	1.0	25.90	G
8	Mar	Disk Ends	0.022	0.025	0.23	0.20			0.43	3.0	1.29	G
9	Mar	Apply Herbicide/Ground	0.225	0.250	3.76	2.05		3.97	9.78	1.0	9.78	G
10	Mar	Mulch	0.300	0.333	3.01	2.73			5.73	1.0	5.73	L
11	Mar	Plant	0.225	0.250	3.61	2.05		33.92	39.58	1.0	39.58	L
12	Mar	Remove Cap	0.129	0.143	0.66	1.17			1.83	1.0	1.83	G
13	Apr	Cultivate	0.225	0.250	1.42	2.05			3.46	3.0	10.39	G
14	May	Irrigate/Run Fertilizer		0.200		1.36		22.25	23.61	2.0	47.23	G
15	Jun	Apply Insecticide/Air						4.23	7.32	1.0	11.55	G
16	Jun	Apply Growth Regulator						4.23	16.61	1.0	20.84	G
17	Jun	Irrigate		0.200		1.36			12.00	8.0	106.92	G
18	Jul	Apply Insecticide/Air						4.23	13.16	1.0	17.39	G
19	Jul	Apply Insecticide/Air						4.23	37.10	1.0	41.33	G
20	Jul	Apply Herbicide/Air						4.75	10.28	1.0	15.03	G
21	Aug	Apply Insecticide/Air						4.23	19.40	1.0	23.63	G
22	Aug	Apply Insecticide/Air						4.23	26.50	1.0	30.73	G
23	Aug	Apply Insecticide/Air						4.23	6.50	1.0	10.73	G
24	Sep	Apply Defoliant/Air						4.75	15.74	1.0	20.49	H
25	Oct	Apply Defoliant/Air						4.75	2.97	1.0	7.72	H
26	Oct	Cotton, First Pick	0.900	1.000	36.54	8.19			44.73	1.0	44.73	H
27	Oct	Cotton, Make Modules	0.300	0.666	3.67	5.00		1.59	10.26	1.0	10.26	H
28	Nov	Cotton, Second Pick	0.600	0.667	24.36	4.55			28.91	0.9	26.02	H
29	Nov	Cotton, Rood	0.300	0.333	2.80	2.73			5.52	1.0	5.52	H
30	Nov	Cotton, Make Modules	0.250	0.556	3.06	4.17		1.59	8.82	1.0	8.82	H
31	Oct	Haul, Custom .2 Mu						6.79	6.79	1.0	6.79	H
32	Oct	Cotton Ginning 33.9 Cs						93.34	93.34	1.0	93.34	P
33	Dec	Cotton Classing 2.3 Ba						2.90	2.90	1.0	2.90	M
34	Dec	Crop Assessment 2.3 Ba						8.23	8.23	1.0	8.23	M
35	Dec	Cut Stalks 2.3 Ba	0.180	0.200	2.41	1.64			4.05	1.0	4.05	P
36	Dec	Disk Residue 2.3 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						21.71			21.71	
TOTAL CASH OPERATING EXPENSES (includes all times over):											736.48	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 13C. Variable Operating Costs; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

OPERATING COST SUMMARY BY CLASS

Land Preparation (L)	84.98
Growing (G)	375.53
Harvest (H)	130.34
Post Harvest (P)	97.38
Marketing (M)	11.12
Operating Overhead (O)	40.34
	=====
Total (T)	\$736.48

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

Prices		- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields		\$0.51	\$0.61	\$0.68	\$0.75	\$0.85	Break-even Price
- 25%	865.5	-239.88	-151.86	-93.18	-34.50	53.52	0.79
- 10%	1,038.6	-187.69	-82.06	-11.64	58.77	164.40	0.69
Budgeted	1,154.0	-152.89	-35.53	42.71	120.95	238.32	0.64
+ 10%	1,269.4	-118.09	11.00	97.07	183.14	312.23	0.60
+ 25%	1,442.5	-65.90	80.80	178.60	276.41	423.11	0.55
Break-even Yield		1,661.05	1,242.11	1,063.32	929.52	781.94	

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Table 13D. Resource and Cash Flow Requirements; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland 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			1.70		17.94	13.88				31.82	
FEB C	0.5	4.0	0.25	12.00	1.27	1.87				15.14	
MAR C	1.0	4.5	0.65	24.00	5.75	5.15	1.98	16.96		53.84	
APR C	0.5	0.5	0.76	12.00	7.06	6.25	1.98	16.96		44.25	
MAY C	1.0	4.0	0.45	12.00	1.42	3.41	10.25			27.08	
JUN C	3.0	12.0	0.85	36.00	1.42	6.14	34.18		8.46	86.20	
JUL C	3.0	12.0	0.65	36.00	0.34	4.50	60.54		13.21	114.60	
AUG C	2.0	8.0	0.40	24.00		2.73	52.40		12.69	91.82	
SEP C	1.0	4.0	0.20	12.00		1.36	15.74		4.75	33.85	
OCT C			1.02		15.36	5.12	2.97	0.95	54.81	79.21	
NOV C			1.44		22.19	8.00		1.43	40.05	71.67	
DEC C			1.09		17.83	8.34		0.79	21.14	48.10	
JAN N			0.08		1.18	0.61				1.79	
Pickup Use60 Mi/Acre					15.41					15.41	
Operating Interest at 10.0									21.71	21.71	
Water Assessment				**							
Total	12.0	49.0	9.54	168.00	107.17	67.36	180.04	37.09	176.82	736.48	
%				22.81	14.55	9.15	24.45	5.04	24.01	100.00	
TOTAL RESOURCE REQUIREMENTS (per Acre)				TOTAL ENERGY REQUIREMENTS (per Acre)							
Total N		100.0		Diesel Fuel		31.6	Gal				
Total P		0.0		Unleaded Gas		6.0	Gal				
Total K		0.0		All Direct Energy		5.1	MBTU				
Total Labor		9.5									
Total Water		49.0									
EQUIPMENT REQUIREMENTS (per Acre)											
Cotton Picker, 2 Row		1.44	Hr	Drag Scraper, 10'		0.27	Hr	Landplane 12'X 45'		0.63	Hr
Laser, Complete System		0.27	Hr	Lister, 7 Bottom		0.18	Hr	Module Builder		0.55	Hr
Moldboard Plow, 5-16 2		0.30	Hr	Offset Disk, 13.5'		0.29	Hr	Offset Disk, 16.5'		0.45	Hr
Pickup Truck, 1/2 Ton		2.00	Hr	Planter, Drill Type, 6 Row		0.22	Hr	Power Mulcher, 4 Rw		0.30	Hr
Rolling Cultivator, 4 Rw		0.67	Hr	Rood, 3 Row W/Basket		0.30	Hr	Rotary Stalk Cutter, 4 Row		0.18	Hr
Rowbuck, 10'		0.07	Hr	Saddle Tk Sprayer, 2 Tk 8		0.22	Hr	Section Harrow, 3 Section		0.13	Hr
Tractor, 70 PTO HP,		1.17	Hr	Tractor, 80 PTO HP,		0.55	Hr	Tractor, 100 PTO HP		0.22	Hr
Tractor, 100 PTO HP,		1.27	Hr	Tractor, 125 PTO HP		0.59	Hr	Tractor, 150 PTO HP		0.75	Hr
MATERIALS REQUIREMENT (per Acre)											
82-00-00, Anhyd.		122.00	Lb	Acephate		0.67	Lb	Buprofezin		0.50	Lb
Ethephon		1.00	Qt	Methidathion		3.00	Pt	Methomyl		1.00	Pt
Module Tarps		60.00	C	Oxamyl		1.50	Pt	Prometryn		2.50	Pt
Pyriproxyfen		8.00	Oz	Sodium Chlorate		2.00	Ga	Technology Charge		1.00	Ac
Thidiazuron/diuron		9.50	Oz	Trifluralin		1.20	Pt	Upland Bt Cotton		16.00	Lb
Water, District		48.00	Al								
LABOR REQUIREMENT (per Acre)											
Harvest		0.60	Hr	Irrigators		2.28	Hr	Other		0.61	Hr
Tractor		6.05	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 13E. Schedule of Operations; Upland Cotton, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Laser Leveled Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 1,154.0 Lb / Acre PREVIOUS CROP: Cotton, Upland 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'	1.00				Tractor
4	Jan	0.3	Laser Level	100 Drag Scraper, 10' Laser, Complete System	1.00				Tractor
5	Jan	1.0	List	125 Lister, 7 Bottom	5.00				Tractor
6	Jan	3.0	Buck Rows	70 Rowbuck, 10'	40.00				Tractor
7	Feb	1.0	Preirrigate		3.60	Water, District	8.00 Al 36.00 AF		Irrigators
8	Mar	3.0	Disk Ends	100 Offset Disk, 13.5'	40.00				Tractor
9	Mar	1.0	Apply Herbicide/Ground	125 Saddle Tk Sprayer, 2 Tk 8 Offset Disk, 13.5'	4.00	Trifluralin	1.20 Pt 24.95 Ga		Tractor
10	Mar	1.0	Mulch	100 Power Mulcher, 4 Rw	3.00				Tractor
11	Mar	1.0	Plant	100 Planter, Drill Type, 6 Row	4.00	Upland Bt Cotton Technology Charge	16.00 Lb 200.00 CW 1.00 Ac 8.00 Ac		Tractor
12	Mar	1.0	Remove Cap	70 Section Harrow, 3 Section	7.00				Tractor
13	Apr	3.0	Cultivate	70 Rolling Cultivator, 4 Rw	4.00				Tractor
14	May	2.0	Irrigate/Run Fertilizer		5.00	Water, District 82-00-00, Anhyd.	4.00 Al 36.00 AF 61.00 Lb 317.00 Tn		Irrigators
15	Jun	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Acephate	0.67 Lb 10.31 Lb	4.23 Ac	
16	Jun	1.0	Apply Growth Regulator	CST Air Spray, 3 Gal Mix		Ethephon	1.00 Qt 62.67 Ga	4.23 Ac	
17	Jun	8.0	Irrigate		5.00	Water, District	4.00 Al 36.00 AF		Irrigators
18	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Oxamyl	1.50 Pt 66.19 Ga	4.23 Ac	
19	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mix		Pyriproxyfen	8.00 Oz 560.00 Ga	4.23 Ac	
20	Jul	1.0	Apply Herbicide/Air	CST Air Spray, 5 Gal Mix		Prometryn	2.50 Pt 31.04 Ga	4.75 Ac	
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 Defoliant/Air	CST Air Spray, 5 Gal Mix		Thidiazuron/diuron	9.50 Oz 200.00 Ga	4.75 Ac	
25	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mix		Sodium Chlorate	2.00 Ga 1.40 Ga	4.75 Ac	
26	Oct	1.0	Cotton, First Pick	Cotton Picker, 2 Row	1.00				Tractor
27	Oct	1.0	Cotton, Make Modules	80 Module Builder	3.00	Module Tarps	30.00 C 0.05 CW		Tractor Other
28	Nov	0.9	Cotton, Second Pick	Cotton Picker, 2 Row	1.50				Harvest
29	Nov	1.0	Cotton, Rood	70 Rood, 3 Row W/Basket	3.00				Tractor
30	Nov	1.0	Cotton, Make Modules	80 Module Builder	3.60	Module Tarps	30.00 C 0.05 CW		Tractor Other
31	Oct	1.0	Haul, Custom	CST Haul Cotton Modules				35.00 Mu	
32	Oct	1.0	Cotton Ginning	CST Gin Upland Cotton				2.75 Cs	
33	Dec	1.0	Cotton Classing	CST Class Cotton, HVI				1.25 Ba	
34	Dec	1.0	Crop Assessment	CST Upland (Low Elev)				3.55 Ba	
35	Dec	1.0	Cut Stalks	125 Rotary Stalk Cutter, 4 Row	5.00				Tractor
36	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.