

Table 6A. Income and Cash Operating Cost Summary, Upland Cotton, 1996

COUNTY: Greenlee	FARM: Greenlee County Farm	WATER SOURCE: DEastN	TILLAGE: Conventional
CROP: Cotton, Upland	ACRES: 1.0	IRRIGATION SYSTEM: Flood Furrow	SOIL: Sandy-Loam
AREA: Duncan Valley	YIELD: 890.0 Lb/Acre	PREVIOUS CROP: Wheat, Winter	DATE: 10/04/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Lint	Pound	890.00	\$0.7200	\$640.80		
Cottonseed	Ton	0.79	114.6000	90.53	\$731.33	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					96.26	
Tractor/Self Propelled				52.38		
Hand				28.04		
Irrigation				15.84		
Chemicals & Custom Applications					198.52	
Fertilizers				137.70		
Insecticides				17.74		
Herbicides				4.73		
Other Chemicals				38.34		
Farm Machinery and Vehicles					55.29	
Diesel Fuel				27.18		
Repairs & Maint.				28.11		
Irrigation (excluding labor)					45.53	
Natural Gas/Pumping				39.96		
Repairs & Maint.				5.57		
Other Purchased Inputs & Services					21.75	
Seed/Transplants				15.75		
Other Services & Rentals				6.00		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					417.35	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					24.11	
Tractor/Self Propelled				11.21		
Other/Contract				12.90		
Chemicals & Custom Applications					21.77	
Other Chemicals				21.77		
Farm Machinery and Vehicles					68.28	
Diesel Fuel				14.76		
Repairs & Maint.				53.52		
Custom Harvest/Post Harvest					2.67	
Cotton Ginning					78.53	
Crop Assessments					5.07	
Other Materials					0.01	
TOTAL HARVEST AND POST HARVEST EXPENSE					200.43	
OPERATING OVERHEAD->PICKUP USE					14.86	
OPERATING INTEREST AT 9.0%					12.55	
TOTAL CASH OPERATING EXPENSES					\$645.19	
RETURNS OVER CASH OPERATING EXPENSES					\$86.14	

Notes: The above figures do not include ownership costs, see Table 6B on Next Page for detailed cost allocation.

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AREA: Duncan Valley	YIELD: 890.0 Lb/Acre	PREVIOUS CROP: Wheat, Winter	DATE: 10/04/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 0.7200/Lb + 2nd Crop	\$731.33		\$731.33	
TOTAL OPERATING EXPENSES	645.18		645.18	
RETURN OVER CASH OPERATING EXPENSES		\$86.14		\$86.14
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	11.47		11.47	
Wells & Irrig. System	2.67		2.67	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	32.25		32.25	
General Farm Maint. (3% of Tot. Oper. Exp.)	19.36		19.36	
Total Cash Overhead Expenses	<u>65.75</u>		<u>65.75</u>	
Total Cash Oper. & Over. Cost	710.94		710.94	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		20.38		20.38
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			79.54	
Wells & Irrig. System			32.16	
Interest on Equity, Machinery & Vehicles			37.21	
Wells & Irrig. System			7.97	
Total Capital Allocations			<u>156.87</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		20.38		
RETURNS TO LAND, MANAGEMENT & RISK				(136.49)
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$480 X 16% X .06830)	5.24		5.24	
Opport. Inter. on Land (100% X 6.0% X \$480)			28.80	
Total Land Costs	<u>5.24</u>		<u>34.04</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		15.13		
RETURNS TO MANAGEMENT & RISK				(170.54)
Management Services (8% of Tot. Oper. Exp.)			51.61	
TOTAL OWNERSHIP COST	<u>71.00</u>		<u>308.29</u>	
TOTAL COST	<u>=====</u> \$716.19		<u>=====</u> \$953.48	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$15.13		
RETURN TO RISK (PROFITS)				(\$222.15)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.6232		\$0.6232
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.0797		\$0.3464
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.7029		\$0.9696

Table 6C. Variable Operating Costs; Upland Cotton, 1996

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 890.0 Lb/Acre PREVIOUS CROP: Wheat, Winter DATE: 10/04/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
1	Jan	Disk	0.180	0.200	1.97	1.68			3.65	2.0	7.30	L
2	Jan	Plow	0.600	0.667	7.02	5.61			12.63	0.5	6.32	L
3	Jan	Rip	0.600	0.667	5.79	5.61			11.40	0.5	5.70	L
4	Feb	Laser Level	0.900	1.000	8.50	8.41			16.91	0.3	5.07	L
5	Feb	Landplane	0.450	0.500	4.52	4.20			8.72	0.7	6.11	L
6	Feb	Apply Fert/Ground	0.150	0.167	2.13	1.40		32.81	36.34	1.0	36.34	G
7	Mar	Apply Herb. & Incorporate	0.150	0.167	1.82	1.40		4.73	7.95	1.0	7.95	G
8	Mar	List	0.180	0.200	1.88	1.68			3.56	1.0	3.56	L
9	Mar	Buck Rows	0.030	0.033	0.26	0.28			0.54	3.0	1.62	G
10	Mar	Preirrigate		0.630	11.38	5.30			16.68	1.0	16.68	G
11	Apr	Disk Ends	0.030	0.033	0.33	0.28			0.61	4.0	2.43	G
12	Apr	Mulch	0.300	0.333	3.51	2.80			6.31	1.0	6.31	L
13	Apr	Plant	0.225	0.250	3.00	2.10		15.75	20.85	1.0	20.85	L
14	Apr	Remove Cap	0.150	0.167	1.28	1.40			2.68	1.0	2.68	G
15	May	Cultivate	0.450	0.500	4.71	4.20			8.91	1.0	8.91	G
16	May	Irrigate		0.314	5.69	2.64			8.33	6.0	49.98	G
17	Jun	Hand Weeding		1.667		14.02			14.02	2.0	28.04	G
18	Jun	Apply Fert/Ground	0.150	0.167	1.58	1.40		39.05	42.03	1.0	42.03	G
19	Jun	Cultivate	0.300	0.333	3.14	2.80			5.94	1.0	5.94	G
20	Jun	Apply Fert/Inject	0.300	0.333	3.70	2.80		32.92	39.42	2.0	78.84	G
21	Jun	Field Scouting						6.00	6.00	1.0	6.00	G
22	Jun	Cultivate	0.225	0.250	2.35	2.10			4.45	2.0	8.91	G
23	Jul	Apply Insecticide/Air						6.00	25.30	1.0	31.30	G
24	Sep	Apply Growth Regulator						8.32	16.47	1.0	24.79	G
25	Oct	Apply Defoliant/Air						8.32	13.45	1.0	21.77	H
26	Oct	Cotton, First Pick	0.900	1.000	34.88	8.41			43.29	1.0	43.29	H
27	Oct	Cotton, Make Modules	0.450	0.500	6.77	4.20			10.97	1.0	10.97	H
28	Oct	Haul, Custom	0.2 Mu						0.01	1.0	0.01	H
29	Oct	Cotton Ginning	26.2 Cs					78.53	78.53	1.0	78.53	P

* NOTES: See next page for notes.

Table 6C. Variable Operating Costs; Upland Cotton, 1996

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 890.0 Lb/Acre PREVIOUS CROP: Wheat, Winter DATE: 10/04/96

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	23.25	5.61			28.86	0.8	23.09	H
31	Dec	Cotton, Rood	0.300	0.333	3.84	2.80			6.64	1.0	6.64	H
32	Dec	Cotton Classing 1.8 Ba					2.67		2.67	1.0	2.67	M
33	Dec	Crop Assessment 1.8 Ba					5.07		5.07	1.0	5.07	M
34	Jan	Cut Stalks	0.450	0.500	4.20	4.20			8.40	1.0	8.40	P
35	Jan	Disk Residue	0.180	0.200	1.97	1.68			3.65	1.0	3.65	L
		Pickup Use 60 Mi/Ac	2.000		14.85						14.85	O
		Operating Interest at 9.00%					13.96				13.96	O
TOTAL CASH OPERATING EXPENSES:					\$183.95	\$120.33	\$128.87	\$213.41			\$646.56	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.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)							
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	
Land Preparation (L)	\$64.86								
Growing (G)	352.44								
Harvest (H)	105.75	Yields		\$0.54	\$0.64	\$0.72	\$0.79	\$0.90	Break-even
Post Harvest (P)	86.92								
Marketing (M)	7.74	-25%	667.5	-236.00	-163.91	-115.85	-67.79	4.29	0.89
Operating Overhead (O)	28.81	-10%	801.0	-193.97	-107.47	-49.79	7.87	94.38	0.78
		Budgeted	890.0	-165.96	-69.84	-5.76	58.31	154.43	0.72
Total (T)	\$646.56	+10%	979.0	-137.94	-32.21	38.27	108.76	214.49	0.68
		+25%	1,112.5	-95.92	24.22	104.32	184.42	304.57	0.62
		Break-even Yield		1,417.20	1,055.19	901.64	787.11	661.13	

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 AREA: Duncan Valley YIELD: 890.0 Lb/Acre PREVIOUS CROP: Wheat, Winter DATE: 10/04/96

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			1.06		10.35	8.97				19.32
FEB C			0.81		7.85	6.87	32.81			47.53
MAR C	1.0	12.0	1.03		15.34	8.66	4.73			28.73
APR C			0.78		8.13	6.58		15.75		30.46
MAY C	1.0	6.0	0.81		10.40	6.85				17.25
JUN C	1.0	6.0	1.46		17.05	12.30	71.97		6.00	107.32
JUL C	2.0	12.0	2.94		18.02	24.76	58.22		6.00	107.00
AUG C	2.0	12.0	2.29		11.38	19.30				30.68
SEP C							16.47		8.32	24.79
OCT C			0.83		17.56	7.01	13.45		24.03	62.04
NOV C			1.03		36.04	8.69			54.97	99.70
DEC C			0.53		10.81	4.48			15.60	30.89
JAN N			0.70		6.17	5.89				12.05
Pickup Use 60 Mi/Ac					14.85					14.85
Operating Interest at 9.0%									13.95	13.95
Total	7.0	48.0	14.31		183.95	120.37	197.65	15.76	128.87	646.59
%					28.44	18.61	30.57	2.43	19.93	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	215.8 lbs	Diesel Fuel	38.4 Gal
Total P	89.6 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	6.0 Gal
Total Labor	14.3 Hrs	Natural Gas/Pumping	103.7 Therms
Total Water	48.0 AI	All Direct Energy	16.4 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 100 PTO HP, MFWD	6.24 Hrs	Offset Disk, 12'	0.66 Hrs
V-Ripper, 5 Shnk	0.30 Hrs	Drag Scraper, 10'	0.27 Hrs
Laser Trailer	0.27 Hrs	Landplane 12'X 45'	0.32 Hrs
Saddle Tk Sprayer, 2 Tk 8 Row	0.15 Hrs	Tandem Disk, 12'	0.15 Hrs
Rowbuck, 10'	0.09 Hrs	Power Mulcher, 4 Rw	0.30 Hrs
Section Harrow, 3 Section	0.15 Hrs	Sled Cultivator, 4Rw	1.20 Hrs
Fertilizer Injector, 4 Row	0.60 Hrs	Cotton Picker, 2 Row	1.38 Hrs
Rood, 3 Row W/Basket Cleaner	0.30 Hrs	Rotary Stalk Cutter, 2 Row	0.45 Hrs
		Moldboard Plow, 3-16 2 Way	0.30 Hrs
		Laser Receiver, Mast System	0.27 Hrs
		Fertilizer Spreader, 28'	0.15 Hrs
		Lister, 5 Bottom	0.18 Hrs
		Planter, 4 Row	0.23 Hrs
		Directed Spray Rig, 16 Row	0.15 Hrs
		Module Builder	0.45 Hrs
		Pickup Truck, 1/2 Ton	2.00 Hrs

MATERIALS REQUIREMENTS (/Acre)			
16-20-00, Dry	250.00 Lb	Trifluralin	1.20 Pt
Upland Cotton Sd+Fung	20.00 Lb	20-0-0-40, Nitro-Sul	30.00 Ga
Chlorpyrifos	2.00 Pt	Mepiquat Chloride	1.00 Pt
Sodium Chlorate	2.00 Ga	Paraquat	0.25 Pt
		Water, Pump	48.00 AI
		18-06-00, Lqd	60.00 Ga
		Ethephon	1.00 Qt
		Module Tarps	0.10 CW

LABOR REQUIREMENTS (/Acre)			
Tractor	7.56 Hrs	Irrigators	1.88 Hrs
Harvest	1.53 Hrs	Hand Weeders	3.33 Hrs

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

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 CROP: Cotton, Upland ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 890.0 Lb/Acre PREVIOUS CROP: Wheat, Winter DATE: 10/04/96

No.	Month	Times	Operation	Equipment/Custom Oper. HP Self-Prop./Implem.	Job Rate Acres/Hr	Material Use & Cost Name	Appl. Rate	\$/Unit	Service Cost \$/Unit	Labor Type
1	Jan	2.0	Disk	100 Offset Disk, 12'	5.00					Tractor
2	Jan	0.5	Plow	100 Moldboard Plow, 3-16 2	1.50					Tractor
3	Jan	0.5	Rip	100 V-Ripper, 5 Shnk	1.50					Tractor
4	Feb	0.3	Laser Level	100 Drag Scraper, 10' Laser Receiver, Mast Sy Laser Trailer	1.00					Tractor
5	Feb	0.7	Landplane	100 Landplane 12'X 45'	2.00					Tractor
6	Feb	1.0	Apply Fert/Ground	100 Fertilizer Spreader, 28	6.00	16-20-00, Dry	250.00 Lb	250.00 Tn		Tractor
7	Mar	1.0	Apply Herb. & Incorp	100 Saddle Tk Sprayer, 2 Tk Tandem Disk, 12'	6.00	Trifluralin	1.20 Pt	30.06 Ga		Tractor
8	Mar	1.0	List	100 Lister, 5 Bottom	5.00					Tractor
9	Mar	3.0	Buck Rows	100 Rowbuck, 10'	30.00					Tractor
10	Mar	1.0	Preirrigate		1.59	Water, Pump	12.00 AI	11.38 AF		Tractor
11	Apr	4.0	Disk Ends	100 Offset Disk, 12'	30.00					Tractor
12	Apr	1.0	Mulch	100 Power Mulcher, 4 Rw	3.00					Tractor
13	Apr	1.0	Plant	100 Planter, 4 Row	4.00	Upland Cotton Sd+F	20.00 Lb	75.00 CW		Tractor
14	Apr	1.0	Remove Cap	100 Section Harrow, 3 Secti	6.00					Tractor
15	May	1.0	Cultivate	100 Sled Cultivator, 4Rw	2.00					Tractor
16	May	6.0	Irrigate		3.18	Water, Pump	6.00 AI	11.38 AF		Irrigator
17	Jun	2.0	Hand Weeding		0.60					Hand Weed
18	Jun	1.0	Apply Fert/Ground	100 Directed Spray Rig, 16	6.00	20-0-0-40, Nitro-S	30.00 Ga	261.00 Tn		Tractor
19	Jun	1.0	Cultivate	100 Sled Cultivator, 4Rw	3.00					Tractor
20	Jun	2.0	Apply Fert/Inject	100 Fertilizer Injector, 4	3.00	18-06-00, Lqd	30.00 Ga	190.00 Tn		Tractor
21	Jun	1.0	Field Scouting	CST Scout For Insects					6.00 Ac	
22	Jun	2.0	Cultivate	100 Sled Cultivator, 4Rw	4.00					Tractor
23	Jul	1.0	Apply Insecticide/Air	CST Air Spray, 3 Gal Mi		Chlorpyrifos	2.00 Pt	44.73 Ga	6.00 Ac	
						Mepiquat Chloride	1.00 Pt	103.28 Ga		
24	Sep	1.0	Apply Growth Regulator	CST Air Spray, 5 Gal Mi		Ethephon	1.00 Qt	62.74 Ga	8.32 Ac	
25	Oct	1.0	Apply Defoliant/Air	CST Air Spray, 5 Gal Mi		Sodium Chlorate	2.00 Ga	6.08 Ga	8.32 Ac	
						Paraquat	0.25 Pt	20.73 Ga		
26	Oct	1.0	Cotton, First Pick	Cotton Picker, 2 Row	1.00					Harvest
27	Oct	1.0	Cotton, Make Modules	100 Module Builder	2.00					Tractor
28	Oct	1.0	Haul, Custom	CST Haul Cotton Modules		Module Tarps	0.10 CW	0.05 CW	0.00 Mu	
29	Oct	1.0	Cotton Ginning	CST Gin Upland Cotton					3.00 Cs	
30	Nov	0.8	Cotton, Second Pick	Cotton Picker, 2 Row	1.50					Harvest
31	Dec	1.0	Cotton, Rood	100 Rood, 3 Row W/Basket C1	3.00					Tractor
32	Dec	1.0	Cotton Classing	CST Class Cotton, HVI					1.50 Ba	
33	Dec	1.0	Crop Assessment	CST Upland (High Elev)					2.85 Ba	
34	Jan	1.0	Cut Stalks	100 Rotary Stalk Cutter, 2	2.00					Tractor
35	Jan	1.0	Disk Residue	100 Offset Disk, 12'	5.00					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.

ARIZONA COOPERATIVE EXTENSION
 Department of Ag & Resource Economics
 The University of Arizona F10/11