

Table 11A. Income and Cash Operating Cost Summary, Grain Sorghum (Late), 1996

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Double Cropped
 CROP: Sorghum(Milo), Grain ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 3,600.0 Lb/Acre PREVIOUS CROP: Wheat, Durum DATE: 10/08/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Grain	Pound	3,600.00	\$0.0682	\$245.52	\$245.52	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					45.12	
Tractor/Self Propelled				16.23		
Irrigation				28.89		
Chemicals & Custom Applications					57.26	
Fertilizers				57.26		
Farm Machinery and Vehicles					16.29	
Diesel Fuel				7.03		
Repairs & Maint.				9.26		
Irrigation Water (excluding labor)					139.33	
Water Assessment (See Note Below) **					**	
Other Purchased Inputs & Services					9.45	
Seed/Transplants				9.45		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					267.46	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					1.89	
Tractor/Self Propelled				1.89		
Farm Machinery and Vehicles					1.98	
Diesel Fuel				0.95		
Repairs & Maint.				1.03		
Custom Harvest/Post Harvest					39.10	
TOTAL HARVEST AND POST HARVEST EXPENSE					42.98	
OPERATING OVERHEAD->PICKUP USE					7.69	
OPERATING INTEREST AT 8.0%					4.25	
TOTAL CASH OPERATING EXPENSES					\$322.37	
RETURNS OVER CASH OPERATING EXPENSES					(\$76.85)	

Notes: The above figures do not include ownership costs, see Table 11B on Next Page for detailed cost allocation.

** A water assessment charge of \$ 9.38/Acre is included in the ownership costs of Table 11B.

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Double Cropped
 CROP: Sorghum(Milo), Grain ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 3,600.0 Lb/Acre PREVIOUS CROP: Wheat, Durum DATE: 10/08/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 0.0682/Lb	\$245.52		\$245.52	
TOTAL OPERATING EXPENSES	322.37		322.37	
RETURN OVER CASH OPERATING EXPENSES		(\$76.85)		(\$76.85)
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	1.95		1.95	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	16.11		16.11	
General Farm Maint. (3% of Tot. Oper. Exp.)	9.67		9.67	
Total Cash Overhead Expenses	<u>27.73</u>		<u>27.73</u>	
Total Cash Oper. & Over. Cost	350.11		350.11	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		(104.59)		(104.59)
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			10.90	
Interest on Equity, Machinery & Vehicles			5.57	
Total Capital Allocations			<u>16.47</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		(104.59)		(104.59)
RETURNS TO LAND, MANAGEMENT & RISK				(121.06)
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$372 X 16% X .16455)	4.89		4.89	
Opport. Inter. on Land (100% X 6.0% X \$372)			11.16	
Water Assessment **	<u>9.38</u>		<u>9.38</u>	
Total Land Costs	14.27		25.43	
RETURNS TO MANAGEMENT, CAPITAL & RISK		(118.86)		(118.86)
RETURNS TO MANAGEMENT & RISK				(146.49)
Management Services (8% of Tot. Oper. Exp.)			25.78	
TOTAL OWNERSHIP COST	<u>42.01</u>		<u>95.43</u>	
TOTAL COST	\$364.38		\$417.80	
RETURN TO MANAGEMENT, CAPITAL & RISK		(\$118.86)		(\$118.86)
RETURN TO RISK (PROFITS)				(\$172.28)
BREAK-EVEN PRICES				
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$0.0895		\$0.0895
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.0116		\$0.0265
BREAK-EVEN PRICE TO COVER TOTAL COST		\$0.1012		\$0.1160

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Double Cropped
 CROP: Sorghum(Milo), Grain ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 3,600.0 Lb/Acre PREVIOUS CROP: Wheat, Durum DATE: 10/08/96

No.	Month	First Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
1	Jun	Apply Fert/Ground	0.075	0.083	0.46	0.70		32.81	33.97	1.0	33.97	G
2	Jun	Disk	0.225	0.250	2.54	2.10			4.64	1.0	4.64	L
3	Jun	List	0.180	0.200	1.82	1.68			3.50	1.0	3.50	L
4	Jun	Mulch	0.300	0.333	3.30	2.80			6.10	1.0	6.10	L
5	Jun	Plant	0.180	0.200	2.18	1.68		9.45	13.31	1.0	13.31	L
6	Jun	Buck Rows	0.225	0.250	1.29	2.10			3.39	1.0	3.39	G
7	Jun	Irrigate		0.750		5.26		25.33	30.59	1.0	30.59	G
8	Jul	Cultivate	0.164	0.182	1.08	1.53			2.61	2.0	5.23	G
9	Jul	Irrigate/Run Fertilizer		0.562		3.94		27.15	31.09	3.0	93.27	G
10	Sep	Irrigate		0.562		3.94		19.00	22.94	3.0	68.82	G
11	Oct	Prepare Ends	0.022	0.025	0.25	0.21			0.46	1.0	0.46	H
12	Oct	Combine Harvest						30.10	30.10	1.0	30.10	H
13	Oct	Haul, Custom 36.0 CW						9.00	9.00	1.0	9.00	H
14	Nov	Cut Stalks	0.180	0.200	1.74	1.68			3.42	1.0	3.42	P
15	Nov	Disk Residue	0.225	0.250	2.54	2.10			4.64	1.0	4.64	L
		Pickup Use 30 Mi/Ac	1.000		7.68				7.68		7.68	O
		Operating Interest at 8.00%						4.24	4.24		4.24	O
TOTAL CASH OPERATING EXPENSES:					\$25.97	\$47.01	\$43.34	\$206.04			\$322.36	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 \$ 9.38/Acre included as ownership cost in Table 11B.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)							
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	
Land Preparation (L)	\$32.18								
Growing (G)	235.26								
Harvest (H)	39.55	Yields		\$0.05	\$0.06	\$0.06	\$0.07	\$0.08	Break-even
Post Harvest (P)	3.41								
Marketing (M)	0.00	-25%	2,700.0	-173.50	-145.88	-127.47	-109.05	-81.43	0.11
Operating Overhead (O)	11.92	-10%	3,240.0	-152.33	-119.18	-97.09	-74.99	-41.84	0.09
		Budgeted	3,600.0	-138.21	-101.38	-76.83	-52.28	-15.45	0.08
Total (T)	\$322.35	+10%	3,960.0	-124.09	-83.58	-56.58	-29.57	10.93	0.08
		+25%	4,500.0	-102.92	-56.88	-26.19	4.49	50.52	0.07
		Break-even Yield		7,124.78	5,650.62	4,965.67	4,428.82	3,810.82	

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Double Cropped
 CROP: Sorghum(Milo), Grain ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 3,600.0 Lb/Acre PREVIOUS CROP: Wheat, Durum DATE: 10/08/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total
JUN C	0.5	4.0	1.46	12.67	9.85	11.80	32.81	4.73		71.86
JUL C	1.5	10.0	1.52	31.67	3.90	11.52	8.15	4.73		59.96
AUG C	2.0	12.0	1.12	38.00		7.88	16.30			62.18
SEP C	2.0	12.0	1.12	38.00		7.88				45.88
OCT C	1.0	6.0	0.58	19.00	0.25	4.15			13.25	36.65
NOV C			0.22		2.14	1.89			13.25	17.28
DEC C			0.22		2.14	1.89				4.03
Pickup Use 30 Mi/Ac					7.68					7.68
Operating Interest at 8.0%									4.25	4.25
Water Assessment				**						
Total	7.0	44.0	6.27	139.33	25.97	47.01	57.26	9.45	30.75	309.77
%				44.97	8.38	15.17	18.48	3.05	9.92	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	150.7 lbs	Diesel Fuel	8.3 Gal
Total P	50.0 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	3.0 Gal
Total Labor	6.2 Hrs		
Total Water	44.0 AI	All Direct Energy	1.5 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 70 PTO HP, MFWD	0.81 Hrs	Fertilizer Broadcaster, Towed	0.08 Hrs
Offset Disk, 13.5'	0.47 Hrs	Lister, 7 Bottom	0.18 Hrs
Planter, 6 Row	0.18 Hrs	Rowbuck, 10'	0.23 Hrs
Rotary Stalk Cutter, 4 Row	0.18 Hrs	Pickup Truck, 1/2 Ton	1.00 Hrs
Tractor, 100 PTO HP, MFWD	1.13 Hrs	Power Mulcher, 4 Rw	0.30 Hrs
		Rolling Cultivator, 4 Rw	0.33 Hrs

MATERIALS REQUIREMENTS (/Acre)			
16-20-00, Dry	250.00 Lb	Grain Sorghum Sd	10.00 Lb
82-00-00, Anhyd. Ammonia	135.00 Lb	Water, District	44.00 AI

LABOR REQUIREMENTS (/Acre)			
Tractor	2.16 Hrs	Irrigators	4.12 Hrs

* NOTE: P = Previous Year C = Current Year N = Next Year
 ** A water assessment charge of \$ 9.38/Acre included as ownership cost in Table 11B.

Table 11E. Schedule of Operations; Grain Sorghum (Late), 1996

COUNTY: Pinal FARM: Pinal County Farm WATER SOURCE: CAID TILLAGE: Double Cropped
 CROP: Sorghum(Milo), Grain ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 3,600.0 Lb/Acre PREVIOUS CROP: Wheat, Durum 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	\$/Unit			
1	Jun	1.0	Apply Fert/Ground	70	Fertilizer Broadcaster,	12.00	16-20-00, Dry	250.00	Lb	250.00	Tn	Tractor
2	Jun	1.0	Disk	100	Offset Disk, 13.5'	4.00						Tractor
3	Jun	1.0	List	100	Lister, 7 Bottom	5.00						Tractor
4	Jun	1.0	Mulch	100	Power Mulcher, 4 Rw	3.00						Tractor
5	Jun	1.0	Plant	70	Planter, 6 Row	5.00	Grain Sorghum Sd	10.00	Lb	90.00	CW	Tractor
6	Jun	1.0	Buck Rows	70	Rowbuck, 10'	4.00						Tractor
7	Jun	1.0	Irrigate			1.33	Water, District	8.00	AI	38.00	AF	Irrigator
8	Jul	2.0	Cultivate	70	Rolling Cultivator, 4 R	5.50						Tractor
9	Jul	3.0	Irrigate/Run Fertiliz			1.78	Water, District	6.00	AI	38.00	AF	Irrigator
							82-00-00, Anhyd. A	45.00	Lb	345.00	Tn	
10	Sep	3.0	Irrigate			1.78	Water, District	6.00	AI	38.00	AF	Irrigator
11	Oct	1.0	Prepare Ends	100	Offset Disk, 13.5'	40.00						Tractor
12	Oct	1.0	Combine Harvest		CST Combine Grain Sorgh					17.50	Ac	
13	Oct	1.0	Haul, Custom		CST Haul Grain					0.25	CW	
14	Nov	1.0	Cut Stalks	100	Rotary Stalk Cutter, 4	5.00						Tractor
15	Nov	1.0	Disk Residue	100	Offset Disk, 13.5'	4.00						Tractor
			Pickup Use 30 Mi/Ac		Pickup Truck, 1/2 Ton	1.00						

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

** A water assessment charge of \$ 9.38/Acre included as ownership cost in Table 11B.

ARIZONA COOPERATIVE EXTENSION
 Department of Ag & Resource Economics
 The University of Arizona F 6/46