

Table 8A. Income and Cash Operating Summary; Corn Silage, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Maricopa-Stanfield Irrig. TILLAGE: Conventional
 CROP: Corn Silage ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 26.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Silage	Ton	26.60	\$31.40	\$835.24	\$835.24	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)					35.44	_____	
Tractor/Self Propelled				19.60		_____	
Hand				4.33		_____	
Irrigation				11.52		_____	
Chemicals and Custom Applications					90.44	_____	
Fertilizer				64.08		_____	
Insecticide				26.37		_____	
Farm Machinery and Vehicles					28.18	_____	
Diesel Fuel				10.53		_____	
Repairs and Maintenance				17.65		_____	
Irrigation Water (excluding labor)					97.71	_____	
Water Assessment (See Note Below) **						_____	
Other Purchased Inputs & Seed/Transplants				27.90	27.90	_____	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					279.67	_____	
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)					2.24	_____	
Tractor/Self Propelled				2.15		_____	
Irrigation				0.09		_____	
Farm Machinery and Vehicles					3.44	_____	
Diesel Fuel				1.25		_____	
Repairs and Maintenance				2.19		_____	
Custom Harvest/Post Harvest					172.90	_____	
TOTAL HARVEST AND POST HARVEST EXPENSE					178.58	_____	
OPERATING OVERHEAD PICKUP USE					7.71	_____	
OPERATING INTEREST AT 10.0%					6.80	_____	
TOTAL CASH OPERATING EXPENSES					\$472.77	_____	
RETURNS OVER CASH OPERATING EXPENSES					\$362.47	_____	

Notes: The above figures do not include ownership costs, see table B for detailed cost allocation.
 ** A water assessment charge of \$25.00 per Acre is included as an ownership cost in Table B.

Table 8B. Allocations of Ownership Costs; Corn Silage, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Maricopa-Stanfield Irrig. TILLAGE: Conventional
 CROP: Corn Silage ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 26.6 Tn / 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 \$31.40 / Tn	\$835.24		\$835.24	
TOTAL OPERATING EXPENSES	\$472.77		\$472.77	
RETURN OVER CASH OPERATING EXPENSES		\$362.47		\$362.47
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	3.30		3.30	
General and Office Overhead (5.0% of Total Operating Exp.)	23.64		23.64	
General Farm Maintenance (3.0% of Total Operating Exp.)	14.18		14.18	
Total Cash Overhead Expenses	41.13		41.13	
Total Cash Operating and Overhead Cost	513.89		513.89	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$321.35		\$321.35
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			18.65	
Interest on Equity, Machinery and Vehicles			7.41	
Total Capital Allocations			26.07	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$321.35		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$295.28
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	25.00		25.00	
Total Land Costs	37.15		63.97	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$284.20		
RETURNS TO MANAGEMENT AND RISK ----->				\$231.31
Management Services (8% of Total Operation Expenses)			37.82	
TOTAL OWNERSHIP COST	78.28		168.99	
TOTAL COST	\$551.04		\$641.75	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$284.20		
RETURNS TO RISK (PROFITS) ----->				\$193.49
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$17.77		\$17.77
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$2.94		\$6.35
BREAK-EVEN PRICE TO COVER TOTAL COST		\$20.72		\$24.13

Table 8C. Variable Operating Costs; Corn Silage, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Maricopa-Stanfield Irrig. TILLAGE: Conventional
 CROP: Corn Silage ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 26.6 Tn / 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	0.188	0.208	3.27	1.70		4.97	3.0	14.92	L
2	Jan	Rip	0.265	0.294	3.95	2.41		6.36	1.0	6.36	L
3	Feb	List	0.225	0.250	3.48	2.05		5.53	1.0	5.53	L
4	Feb	Apply Fert/Ground	0.112	0.125	1.42	1.02	33.66	36.10	1.0	36.10	G
5	Feb	Mulch	0.161	0.180	1.41	1.47		2.88	1.0	2.88	L
6	Feb	Disk Ends	0.011	0.013	0.12	0.11		0.23	3.0	0.68	G
7	Feb	Make Borders	0.023	0.025	0.16	0.20		0.37	3.0	1.10	G
8	Feb	Block Borders	0.012	0.013	0.08	0.11		0.19	3.0	0.57	G
9	Feb	Preirrigate		0.129		0.88	29.68	30.56	1.0	30.56	G
10	Feb	Knock Borders	0.023	0.025	0.13	0.20		0.33	3.0	1.00	G
11	Feb	Plant	0.180	0.200	2.89	1.64	27.90	32.43	1.0	32.43	L
12	Mar	Remove Cap	0.082	0.091	0.57	0.75		1.32	1.0	1.32	G
13	Mar	Cultivate	0.200	0.222	1.75	1.82		3.57	1.0	3.57	G
14	Mar	Irrigate		0.200		1.36	11.17	12.53	5.0	62.66	G
15	Apr	Irrigate/Run Fertilizer		0.279		1.91	21.31	23.21	2.0	46.43	G
16	Apr	Cultivate	0.161	0.179	1.41	1.47		2.87	1.0	2.87	G
17	Apr	Hand Weeding		0.667		4.33		4.33	1.0	4.33	G
18	May	Apply Insecticide/Air					4.23	22.14	1.0	26.37	G
19	Jul	Prepare Ends	0.011	0.013	0.12	0.09		0.20	1.0	0.20	H
20	Jul	Chopping 26.6 Tn					172.90	172.90	1.0	172.90	H
21	Aug	Cut Stalks 26.6 Tn	0.237	0.263	3.33	2.15		5.48	1.0	5.48	P
		Pickup Use30 Mi/Acre	1.000		7.71					7.71	
		Operating Interest at 10.0				6.80				6.80	
TOTAL CASH OPERATING EXPENSES (includes all times over):											
=====											
472.77 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 \$25.00 per Acre is included as an ownership cost in Table B.

OPERATING COST SUMMARY BY CLASS

Land Preparation (L)	62.12
Growing (G)	217.56
Harvest (H)	173.10
Post Harvest (P)	5.48
Marketing (M)	0.00
Operating Overhead (O)	14.51
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Total (T)	\$472.77

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

Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%		
Yields	\$23.55	\$28.26	\$31.40	\$34.54	\$39.25	Break-even Price	
- 25%	20.0	39.93	133.89	196.53	259.18	353.14	21.55
- 10%	23.9	107.10	219.86	295.03	370.20	482.96	19.08
Budgeted	26.6	151.89	277.17	360.70	444.22	569.51	17.84
+ 10%	29.3	196.67	334.49	426.36	518.24	656.05	16.83
Break-even Yield	17.58	13.74	11.99	10.64	9.10		

Table 8D. Resource and Cash Flow Requirements; Corn Silage, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Maricopa-Stanfield Irrig. TILLAGE: Conventional
 CROP: Corn Silage ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 26.6 Tn / 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			0.71		10.49	5.81					16.30
FEB C	1.0	7.0	1.17	19.54	12.97	9.39	43.80	27.90			113.59
MAR C	2.0	8.0	0.79	22.33	2.82	5.91					31.07
APR C	2.0	8.0	1.40	22.33	1.90	9.69	10.14				44.06
MAY C	2.0	8.0	0.48	22.33		3.27	32.28		4.23		62.11
JUN C	1.0	4.0	0.21	11.17	0.12	1.45			172.90		185.64
AUG C			0.26		3.33	2.15					5.48
Pickup Use30 Mi/Acre					7.71						7.71
Operating Interest at 10.0									6.80		6.80
Water Assessment				**							
Total	8.0	35.0	5.02	97.71	39.33	37.68	86.21	27.90	183.93	472.77	
%				20.67	8.32	7.97	18.24	5.90	38.91	100.00	

TOTAL RESOURCE REQUIREMENTS (per Acre)

Total N 106.2
 Total P 90.0
 Total K 0.0
 Total Labor 5.0
 Total Water 35.0

TOTAL ENERGY REQUIREMENTS (per Acre)

Diesel Fuel 15.5 Gal
 Unleaded Gas 3.0 Gal
 All Direct Energy 2.5 M BTU

EQUIPMENT REQUIREMENTS (per Acre)

Blade Scraper, 10'	0.10 Hr	Border Disk, 6' Disk	0.07 Hr	Dbl. Offset Disk, 13'	0.03 Hr
Fertilizer Spreader, 28'	0.11 Hr	Flail Stalk Cutter, 4 Row	0.24 Hr	Lister, 7 Bottom	0.22 Hr
Offset Disk, 13.5'	0.01 Hr	Offset Disk, 16.5'	0.56 Hr	Pickup Truck, 1/2 Ton	1.00 Hr
Planter, Drill Type, 6 Row	0.18 Hr	Rolling Cultivator, 6 Rw	0.52 Hr	Section Harrow, 4 Section	0.08 Hr
Tractor, 80 PTO HP	0.08 Hr	Tractor, 80 PTO HP,	0.07 Hr	Tractor, 100 PTO HP	0.18 Hr
Tractor, 100 PTO HP,	0.78 Hr	Tractor, 125 PTO HP	0.24 Hr	Tractor, 150 PTO HP	1.05 Hr
V-Ripper, 5 Shnk	0.26 Hr				

MATERIALS REQUIREMENT (per Acre)

00-45-00, Treble Super.	200.00 Lb	32-00-00, URAN 32, Lqd	30.00 Ga	Field Corn Sd	28.00 Th
Methomyl	2.50 Pt	Permethrin	4.00 Oz	Water, District	35.00 AI

LABOR REQUIREMENT (per Acre)

Hand Weeders	0.67 Hr	Irrigators	1.70 Hr	Tractor	2.66 Hr
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*NOTE: P = Previous Year C = Current Year N = Next Year

** A water assessment charge of \$25.00 per Acre is included as an ownership cost in Table B.

Table 8E. Schedule of Operations; Corn Silage, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Maricopa-Stanfield Irrig. TILLAGE: Conventional
 CROP: Corn Silage ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 26.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

First No.	Month	Times	Operation	Equipment/ Custom Oper		Job Rate Acres/Hr	Material Use and Cost				Service Cost \$ / Unit	Labor Type
				HP	Self-Prop./ Implement		Name	Appl. Rate	\$ / Unit			
1	Jan	3.0	Disk	150	Offset Disk, 16.5'	4.80						Tractor
2	Jan	1.0	Rip	150	V-Ripper, 5 Shnk	3.40						Tractor
3	Feb	1.0	List	150	Lister, 7 Bottom	4.00						Tractor
4	Feb	1.0	Apply Fert/Ground	100	Fertilizer Spreader, 28'	8.00	00-45-00, Treble	200.00	Lb	317.50	Tn	Tractor
5	Feb	1.0	Mulch	100	Rolling Cultivator, 6 Rw	5.60						Tractor
6	Feb	3.0	Disk Ends	100	Dbl. Offset Disk, 13'	80.00						Tractor
7	Feb	3.0	Make Borders	100	Blade Scraper, 10'	40.00						Tractor
8	Feb	3.0	Block Borders	100	Blade Scraper, 10'	76.90						Tractor
9	Feb	1.0	Preirrigate			7.80	Water, District	7.00	AI	33.50	AF	Irrigators
							32-00-00, URAN 32,	10.00	Ga	173.00	Tn	
10	Feb	3.0	Knock Borders	80	Border Disk, 6' Disk	40.00						Tractor
11	Feb	1.0	Plant	100	Planter, Drill Type, 6 Row	5.00	Field Corn Sd	28.00	Th	0.94	Th	Tractor
12	Mar	1.0	Remove Cap	80	Section Harrow, 4 Section	11.00						Tractor
13	Mar	1.0	Cultivate	100	Rolling Cultivator, 6 Rw	4.50						Tractor
14	Mar	5.0	Irrigate			5.00	Water, District	4.00	AI	33.50	AF	Irrigators
15	Apr	2.0	Irrigate/Run Fertilizer			3.58	Water, District	4.00	AI	33.50	AF	Irrigators
							32-00-00, URAN 32,	10.00	Ga	173.00	Tn	
16	Apr	1.0	Cultivate	100	Rolling Cultivator, 6 Rw	5.60						Tractor
17	Apr	1.0	Hand Weeding			1.50						Hand
18	May	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mix		Permethrin	4.00	Oz	177.72	Ga	4.23 Ac
							Methomyl	2.50	Pt	49.05	Ga	
19	Jul	1.0	Prepare Ends	100	Offset Disk, 13.5'	80.00						Irrigators
20	Jul	1.0	Chopping		CST Custom Chop & Hual							6.50 Tn
21	Aug	1.0	Cut Stalks	125	Flail Stalk Cutter, 4 Row	3.80						Tractor
			Pickup use 30 Mi/Ac		Pickup Truck, 1/2 Ton	1.00						

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