

Table 10A. Income and Cash Operating Summary; Pumpkins, 2001

COUNTY: Pima FARM: Southern AZ Veg WATER SOURCE: Avra Valley, Electric TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Avra Valley YIELD: 3.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 10/9/01

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Pumpkins	Ton	3.60	\$102.00	\$367.20	\$367.20	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					40.55	_____
Tractor/Self Propelled				19.96		_____
Irrigation				20.59		_____
Chemicals and Custom Applications					170.83	_____
Fertilizer				42.15		_____
Insecticide				82.27		_____
Other Chemicals				46.41		_____
Farm Machinery and Vehicles					25.87	_____
Diesel Fuel				10.39		_____
Repairs and Maintenance				15.48		_____
Irrigation Water (excluding labor)					129.69	_____
Pump Energy - Electric				111.67		_____
Repairs and Maintenance				18.01		_____
Water Assessment (See Note Below) **						_____
Other Purchased Inputs &					400.49	_____
Seed/Transplants				250.49		_____
Other Services and Rentals				150.00		_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					767.43	_____
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					143.59	_____
Tractor/Self Propelled				52.62		_____
Other/Contract				90.98		_____
Farm Machinery and Vehicles					68.00	_____
Diesel Fuel				24.95		_____
Repairs and Maintenance				43.05		_____
TOTAL HARVEST AND POST HARVEST EXPENSE					211.59	_____
OPERATING OVERHEAD -> PICKUP USE					5.08	_____
OPERATING INTEREST AT 10.0%					14.89	_____
TOTAL CASH OPERATING EXPENSES					\$998.99	_____
RETURNS OVER CASH OPERATING EXPENSES					(\$631.79)	_____

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

Table 10B. Allocations of Ownership Costs; Pumpkins, 2001

COUNTY: Pima FARM: Southern AZ Veg WATER SOURCE: Avra Valley, Electric TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Avra Valley YIELD: 3.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 10/9/01

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Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$102.00 / Tn	\$367.20		\$367.20	
TOTAL OPERATING EXPENSES	\$998.99		\$998.99	
RETURN OVER CASH OPERATING EXPENSES		(\$631.79)		(\$631.79)
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	7.16		7.16	
Wells and Irrigation System	10.19		10.19	
General and Office Overhead (5.0% of Total Operating Exp.)	49.95		49.95	
General Farm Maintenance (3.0% of Total Operating Exp.)	29.97		29.97	
Total Cash Overhead Expenses	97.27		97.27	
Total Cash Operating and Overhead Cost	1,096.26		1,096.26	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		(\$729.06)		(\$729.06)
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			46.09	
Wells and Irrigation System			27.83	
Interest on Equity, Machinery and Vehicles			20.72	
Wells and Irrigation System			15.88	
Total Capital Allocations			110.52	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		(\$729.06)		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$839.58)
Land Cost / Rent or Lease	100.00		100.00	
Total Land Costs	100.00		100.00	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$829.06)		
RETURNS TO MANAGEMENT AND RISK ----->				(\$939.58)
Management Services (8% of Total Operation Expenses)			79.92	
TOTAL OWNERSHIP COST	197.27		387.71	
TOTAL COST	\$1,196.26		\$1,386.70	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$829.06)		
RETURNS TO RISK (PROFITS) ----->				(\$1,019.50)
Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$277.50		\$277.50
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$54.80		\$107.70
BREAK-EVEN PRICE TO COVER TOTAL COST		\$332.29		\$385.19

Table 10C. Variable Operating Costs; Pumpkins, 2001

COUNTY: Pima FARM: Southern AZ Veg WATER SOURCE: Avra Valley, Electric TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Avra Valley YIELD: 3.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 10/9/01

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	May	Disk	0.225	0.250	4.11	2.19			6.30	1.0	6.30	L	
2	May	Landplane	0.360	0.400	3.99	3.51			7.50	1.0	7.50	L	
3	May	List	0.225	0.250	3.19	2.19			5.38	1.0	5.38	L	
4	May	Buck Rows	0.023	0.025	0.22	0.22			0.44	3.0	1.32	G	
5	May	Preirrigate		0.565	23.71	4.33			28.05	1.0	28.05	G	
6	May	Mulch	0.225	0.250	2.84	2.19			5.03	1.0	5.03	L	
7	Jun	Plant	0.225	0.250	2.43	2.19		250.49	255.11	1.0	255.11	L	
8	Jul	Irrigate/Run Fertilizer		0.424	23.71	3.25		8.43	35.40	5.0	176.98	G	
9	Jul	Disk Ends	0.023	0.025	0.29	0.22			0.51	2.0	1.02	G	
10	Jul	Cultivate	0.225	0.250	2.44	2.19			4.63	2.0	9.26	G	
11	Jul	Hand Weeding						75.00	75.00	2.0	150.00	G	
12	Aug	Apply Fungicide/Air						4.75	14.15	18.90	2.0	37.80	G
13	Sep	Apply Insecticide/Air						4.75	17.97	22.72	4.0	90.88	G
14	Oct	Prepare Ends	0.023	0.025	0.29	0.22			0.51	1.0	0.51	H	
15	Oct	Pick and Load	2.000	4.444	25.21	34.66			59.87	1.0	59.87	H	
16	Oct	Haul 1	3.371	3.750	42.49	32.90			75.39	1.0	75.39	H	
17	Oct	Disk Residue	0.225	0.250	3.20	2.19			5.39	1.0	5.39	L	
		Pickup Use 20 Mi/Acre	0.667		5.08						5.08		
		Operating Interest at 10.0						14.89			14.89		
TOTAL CASH OPERATING EXPENSES (includes all times over):											998.99	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

Land Preparation (L)	284.72
Growing (G)	558.53
Harvest (H)	135.77
Post Harvest (P)	0.00
Marketing (M)	0.00
Operating Overhead (O)	19.97
Total (T)	\$998.99

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

		Prices ->					Break-even Price	
		- 25%	- 10%	Budgeted	+ 10%	+ 25%		
	Yields	\$76.50	\$91.80	\$102.00	\$112.20	\$127.50		
	- 25%	2.7	-896.89	-855.58	-828.04	-800.50	-759.19	408.68
	- 10%	3.2	-875.95	-826.38	-793.33	-760.28	-710.71	346.85
	Budgeted	3.6	-861.99	-806.91	-770.19	-733.47	-678.39	315.94
	+ 10%	4.0	-848.02	-787.43	-747.04	-706.65	-646.06	290.65
	+ 25%	4.5	-827.08	-758.23	-712.33	-666.43	-597.58	260.30
	Break-even Yield		25.82	18.52	15.58	13.45	11.16	

Table 10D. Resource and Cash Flow Requirements; Pumpkins, 2001

COUNTY: Pima FARM: Southern AZ Veg WATER SOURCE: Avra Valley, Electric TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Avra Valley YIELD: 3.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 10/9/01

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
MAY C	1.0	8.0	1.74		38.06	14.64				52.70
JUN C			0.28		2.65	2.41		250.49		255.55
JUL C	2.0	16.0	1.15		50.38	9.14	16.86		75.00	151.38
AUG C	2.0	16.0	1.12		50.16	8.92	45.16		84.50	188.74
SEP C	1.0	8.0	0.42		23.71	3.25	80.31		19.00	126.27
OCT C			19.58		71.19	133.19				204.38
Pickup Use 20 Mi/Acre					5.08					5.08
Operating Interest at 10.0 Water Assessment				**					14.89	14.89
Total	6.0	48.0	24.29		241.23	171.55	142.33	250.49	193.39	998.99
%					24.15	17.17	14.25	25.07	19.36	100.00

TOTAL RESOURCE REQUIREMENTS (per Acre)

Total N 150.4
 Total Labor 24.3
 Total Water 48.0

TOTAL ENERGY REQUIREMENTS per Acre)

Diesel Fuel 41.0 Gal
 Unleaded Gas 2.0 Gal
 Electric / Pumping 2844.4 KWH
 All Direct Energy 15.6 M BTU

EQUIPMENT REQUIREMENTS (per Acre)

Cultivator, Sweep, 4 Rw	0.45 Hr	Disk-Lister, 4 Rw	0.22 Hr	Flexi-Planter - 4 Units	0.22 Hr
Landplane 12'X 45'	0.36 Hr	Offset Disk, 12'	0.22 Hr	Offset Disk, 13.5'	0.07 Hr
Offset Disk, 16.5'	0.22 Hr	Pickup Truck, 1/2 Ton	0.67 Hr	Power Mulcher, 4 Rw	0.22 Hr
Rowbuck, 10'	0.07 Hr	Tractor, 100 PTO HP	6.99 Hr	Tractor, 150 PTO HP	0.22 Hr
Tractor, 150 PTO HP,	0.22 Hr	Vegetable Trailer Flat Bed	5.37 Hr		

MATERIALS REQUIREMENT (per Acre)

32-00-00, URAN 32, Lqd	42.50 Ga	Benomyl	0.50 Lb	Endosulfan	4.00 Pt
Esfenvalerate	38.40 Oz	Pumpkin Seed (Hyb)	12.00 Th	Surfactant (spreader)	4.00 Pt
Triadimefon	0.24 Lb	Water, Pump	48.00 Al		

LABOR REQUIREMENT (per Acre)

Irrigators	2.68 Hr	Other	13.33 Hr	Tractor	8.27 Hr
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*NOTE: P = Previous Year C = Current Year N = Next Year

Table 10E. Schedule of Operations; Pumpkins, 2001

COUNTY: Pima FARM: Southern AZ Veg WATER SOURCE: Avra Valley, Electric TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Avra Valley YIELD: 3.6 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 10/9/01

First No. Month Times	Operation	Equipment/ Custom Oper		Job Rate Acre/Hr	Material Use and Cost				Service Cost \$ / Unit	Labor Type		
		HP	Self-Prop./ Implement		Name	Appl. Rate	\$ / Unit					
May	1.0	Disk	150	Offset Disk, 16.5'	4.00					Tractor		
May	1.0	Landplane	100	Landplane 12'X 45'	2.50					Tractor		
May	1.0	List	100	Disk-Lister, 4 Rw	4.00					Tractor		
May	3.0	Buck Rows	100	Rowbuck, 10'	40.00					Tractor		
May	1.0	Preirrigate			1.77	Water, Pump	8.00	Al	35.57	AF	Irrigators	
May	1.0	Mulch	100	Power Mulcher, 4 Rw	4.00						Tractor	
Jun	1.0	Plant	100	Flexi-Planter - 4 Units	4.00	Pumpkin Seed (Hyb)	12.00	Th	19.88	Th	Tractor	
Jul	5.0	Irrigate/Run Fertilizer			2.36	Water, Pump	8.00	Al	35.57	AF	Irrigators	
						32-00-00, URAN 32,	8.50	Ga	170.80	Tn		
Jul	2.0	Disk Ends	100	Offset Disk, 13.5'	40.00						Tractor	
Jul	2.0	Cultivate	100	Cultivator, Sweep, 4 Rw	4.00						Tractor	
Jul	2.0	Hand Weeding		CST Hand Weeding						75.00	Ac	
Aug	2.0	Apply Fungicide/Air		CST Air Spray, 5 Gal Mix		Benomyl	0.25	Lb	20.25	Lb	4.75	Ac
						Triadimefon	0.12	Lb	70.12	Lb		
Sep	4.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Esfenvalerate	9.60	Oz	144.04	Ga	4.75	Ac
						Endosulfan	1.00	Pt	34.08	Ga		
						Surfactant (spreader)	1.00	Pt	16.40	Ga		
Oct	1.0	Prepare Ends	100	Offset Disk, 13.5'	40.00						Tractor	
Oct	1.0	Pick and Load	100	Vegetable Trailer Flat Bed	0.45						Tractor	
											Other	
Oct	1.0	Haul	100	Vegetable Trailer Flat Bed	0.27						Tractor	
Oct	1.0	Disk Residue	150	Offset Disk, 12'	4.00						Tractor	
		Pickup use 20 Mi/Ac		Pickup Truck, 1/2 Ton	1.50							

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

Table 10F Operations Calendar; Pumpkins, 2001

COUNTY: Pima FARM: Southern Vegetables WATER SOURCE: Avra Valley, Elect. TILLAGE: Conventional
 CROP: Pumpkins ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Marana YIELD: 3.6 Tn/Acre PREVIOUS CROP: Cotton, Upland DATE: 10/09/01

No.	Operation	Month and Times Operation Performed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Disk					1.0 C							
2	Landplane					1.0 C							
3	List					1.0 C							
4	Buck Rows					1.0 C	1.0 C	1.0 C					
5	Preirrigate					1.0 C							
6	Mulch					1.0 C							
7	Plant						1.0 C						
8	Irrigate/Run Fertilizer							2.0 C	2.0 C	1.0 C			
9	Disk Ends							1.0 C	1.0 C				
10	Cultivate							1.0 C	1.0 C				
11	Hand Weeding							1.0 C	1.0 C				
12	Apply Fungicide/Air								2.0 C				
13	Apply Insecticide/Air									4.0 C			
14	Prepare Ends										1.0 C		
15	Pick and Load										1.0 C		
16	Haul										1.0 C		
17	Disk Residue										1.0 C		

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