

Table 4A. Income and Cash Operating Summary; Pumpkins, 1998

COUNTY: Pima FARM: Pima Vegetables 98 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: 11/23/98

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)					36.95	_____	
Tractor/Self Propelled					18.63	_____	
Irrigation					18.32	_____	
Chemicals and Custom Applications					168.91	_____	
Fertilizer					42.69	_____	
Insecticide					82.76	_____	
Other Chemicals					43.46	_____	
Farm Machinery and Vehicles					23.64	_____	
Diesel Fuel					8.16	_____	
Repairs and Maintenance					15.48	_____	
Irrigation (excluding labor)					169.37	_____	
Pump Energy - Electric					151.35	_____	
Repairs and Maintenance					18.01	_____	
Other Purchased Inputs &					400.49	_____	
Seed/Transplants					250.49	_____	
Other Services and Rentals					150.00	_____	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					799.36	_____	
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)					140.08	_____	
Tractor/Self Propelled					49.11	_____	
Other/Contract					90.98	_____	
Farm Machinery and Vehicles					62.64	_____	
Diesel Fuel					19.59	_____	
Repairs and Maintenance					43.05	_____	
TOTAL HARVEST AND POST HARVEST EXPENSE					202.72	_____	
OPERATING OVERHEAD PICKUP USE					4.94	_____	
OPERATING INTEREST AT 10.0%					23.14	_____	
TOTAL CASH OPERATING EXPENSES					\$1,030.17	_____	
RETURNS OVER CASH OPERATING EXPENSES					(\$662.97)	_____	

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

Table 4B. Allocations of Ownership Costs; Pumpkins,1998

COUNTY:Pima FARM: Pima Vegetables 98 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: 11/23/98

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	\$1,030.17		\$1,030.17	
RETURN OVER CASH OPERATING EXPENSES		(\$662.97)		(\$662.97)
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.)	51.51		51.51	
General Farm Maintenance (3.0% of Total Operating Exp.)	30.90		30.90	
Total Cash Overhead Expenses	99.76		99.76	
Total Cash Operating and Overhead Cost	1,129.93		1,129.93	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		(\$762.73)		(\$762.73)
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 ----->		(\$762.73)		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$873.25)
Land Cost / Rent or Lease	100.00		100.00	
Total Land Costs	100.00		100.00	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$862.73)		
RETURNS TO MANAGEMENT AND RISK ----->				(\$973.25)
Management Services (8% of Total Operation Expenses)			82.41	
TOTAL OWNERSHIP COST	199.76		392.70	
TOTAL COST	\$1,229.93		\$1,422.86	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$862.73)		
RETURNS TO RISK (PROFITS) ----->				(\$1,055.66)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$286.16		\$286.16
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$55.49		\$109.08
BREAK-EVEN PRICE TO COVER TOTAL COST		\$341.65		\$395.24

Table 4C. Variable Operating Costs; Pumpkins, 1998

COUNTY:Pima FARM: Pima Vegetables 98 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: 11/23/98

No.	First Month	Operation	---- Hours * ----		---- Operating Costs (\$/ACRE *) Per Operation ----					Tot. Cash Expense	Class	
			Machine	Labor	Fuel/Rps.	Labor	Cust/Serv.	Materials	Total			Times
1	May	Disk	0.225	0.250	3.84	2.05			5.88	1.0	5.88	L
2	May	Landplane	0.360	0.400	3.70	3.28			6.97	1.0	6.97	L
3	May	List	0.225	0.250	3.00	2.05			5.05	1.0	5.05	L
4	May	Buck Rows	0.023	0.025	0.20	0.20			0.41	3.0	1.23	G
5	May	Preirrigate		0.565	30.33	3.86			34.18	1.0	34.18	G
6	May	Mulch	0.225	0.250	2.66	2.05			4.70	1.0	4.70	L
7	Jun	Plant	0.225	0.250	2.25	2.05		250.49	254.78	1.0	254.78	L
8	Jul	Irrigate/Run Fertilizer		0.424	30.33	2.89		8.54	41.76	5.0	208.80	G
9	Jul	Disk Ends	0.023	0.025	0.27	0.20			0.48	2.0	0.95	G
10	Jul	Cultivate	0.225	0.250	2.25	2.05			4.30	2.0	8.60	G
11	Jul	Hand Weeding						75.00	75.00	2.0	150.00	G
12	Aug	Apply Fungicide/Air						4.75	12.75	2.0	34.99	G
13	Sep	Apply Insecticide/Air						4.75	18.06	4.0	91.23	G
14	Oct	Prepare Ends	0.023	0.025	0.27	0.20			0.48	1.0	0.48	H
15	Oct	Pick and Load	2.000	4.444	23.08	77.31			100.39	1.0	100.39	H
16	Oct	Haul 1	3.371	3.750	39.76	62.57			102.33	1.0	102.33	H
17	Oct	Disk Residue	0.225	0.250	2.94	2.05			4.99	1.0	4.99	L
		Pickup Use20 Mi/Acre	0.667		4.94						4.94	
		Operating Interest at 10.0						23.14			23.14	
TOTAL CASH OPERATING EXPENSES (includes all times over):					274.07	158.71	201.64	390.90			1030.17	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 THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)							
		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%	Break-even Price	
Land Preparation (L)	282.39								
Growing (G)	516.98	Yields	\$76.50	\$91.80	\$102.00	\$112.20	\$127.50	Break-even Price	
Harvest (H)	202.72								
Post Harvest (P)	0.00	- 25%	2.7	-726.07	-684.76	-657.22	-629.68	-588.37	345.42
Marketing (M)	0.00	- 10%	3.2	-703.94	-654.37	-621.32	-588.28	-538.70	293.77
Operating Overhead (O)	28.08	Budgeted	3.6	-689.19	-634.11	-597.39	-560.67	-505.59	267.94
	=====	+ 10%	4.0	-674.44	-613.85	-573.46	-533.07	-472.48	246.81
Total (T)	\$964.59	+ 25%	4.5	-652.32	-583.47	-537.57	-491.67	-422.82	221.46
		Break-even Yield		20.42	14.87	12.59	10.91	9.10	

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Table 4D. Resource and Cash Flow Requirements; Pumpkins, 1998

COUNTY:Pima FARM: Pima Vegetables 98 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: 11/23/98

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		43.51	13.48				56.99
JUN C			0.28		2.41	2.25		250.49		255.15
JUL C	2.0	16.0	1.15		63.34	5.35	17.08		75.00	160.77
AUG C	2.0	16.0	1.12		63.14	5.15	47.42		84.50	200.21
SEP C	1.0	8.0	0.42		31.20	2.89	80.76		19.00	133.85
OCT C			19.58		65.53	129.59				195.12
Pickup Use20 Mi/Acre					4.94					4.94
Operating Interest at 10.0									25.49	25.49
Total	6.0	48.0	24.29		274.07	158.71	145.26	250.49	201.64	1030.17
%					26.60	15.41	14.10	24.32	19.57	100.00

TOTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS (per Acre)

Total N	150.4	Diesel Fuel	41.0 Gal
Total P	0.0	Unleaded Gas	2.0 Gal
Total K	0.0	Electric / Pumping	2844.4 KWH
Total Labor	24.3	All Direct Energy	15.6 M BTU
Total Water	48.0		

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
Fenvalerate	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 4E. Schedule of Operations; Pumpkins, 1998

COUNTY:Pima FARM: Pima Vegetables 98 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: 11/23/98

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	May	1.0	Disk	150	Offset Disk, 16.5'	4.00						Tractor	
2	May	1.0	Landplane	100	Landplane 12'X 45'	2.50						Tractor	
3	May	1.0	List	100	Disk-Lister, 4 Rw	4.00						Tractor	
4	May	3.0	Buck Rows	100	Rowbuck, 10'	40.00						Tractor	
5	May	1.0	Preirrigate			1.77	Water, Pump	8.00	Al	45.49	AF	Irrigators	
6	May	1.0	Mulch	100	Power Mulcher, 4 Rw	4.00						Tractor	
7	Jun	1.0	Plant	100	Flexi-Planter - 4 Units	4.00	Pumpkin Seed (Hyb)	12.00	Th	19.88	Th	Tractor	
8	Jul	5.0	Irrigate/Run Fertilizer			2.36	Water, Pump	8.00	Al	45.49	AF	Irrigators	
							32-00-00, URAN 32,	8.50	Ga	173.00	Tn		
9	Jul	2.0	Disk Ends	100	Offset Disk, 13.5'	40.00						Tractor	
10	Jul	2.0	Cultivate	100	Cultivator, Sweep, 4 Rw	4.00						Tractor	
11	Jul	2.0	Hand Weeding		CST Hand Weeding						75.00	Ac	
12	Aug	2.0	Apply Fungicide/Air		CST Air Spray, 5 Gal Mix		Benomyl	0.25	Lb	19.03	Lb	4.75	Ac
							Triadimefon	0.12	Lb	61.51	Lb		
13	Sep	4.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Fenvalerate	9.60	Oz	146.61	Ga	4.75	Ac
							Endosulfan	1.00	Pt	33.47	Ga		
							Surfactant (spreader)	1.00	Pt	16.13	Ga		
14	Oct	1.0	Prepare Ends	100	Offset Disk, 13.5'	40.00						Tractor	
15	Oct	1.0	Pick and Load	100	Vegetable Trailer Flat Bed	0.45						Tractor	
												Other	
16	Oct	1.0	Haul	100	Vegetable Trailer Flat Bed	0.27						Tractor	
17	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.