

Table 12A. Income and Cash Operating Cost Summary, Pumpkins, 1996

COUNTY: Pima	FARM: Pima County Farm	WATER SOURCE: AvarE	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: 10/14/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Pumpkins	Ton	3.60	\$102.0000	\$367.20	\$367.20	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					42.15	
Tractor/Self Propelled				23.34		
Irrigation				18.82		
Chemicals & Custom Applications					186.74	
Fertilizers				50.59		
Insecticides				89.46		
Other Chemicals				46.69		
Farm Machinery and Vehicles					33.88	
Diesel Fuel				15.93		
Repairs & Maint.				17.95		
Irrigation (excluding labor)					182.96	
Pump Energy - Elect.				164.95		
Repairs & Maint.				18.01		
Other Purchased Inputs & Services					543.75	
Seed/Transplants				393.75		
Other Services & Rentals				150.00		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					989.49	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					143.87	
Tractor/Self Propelled				50.43		
Other/Contract				93.43		
Farm Machinery and Vehicles					80.17	
Diesel Fuel				36.82		
Repairs & Maint.				43.35		
TOTAL HARVEST AND POST HARVEST EXPENSE					224.04	
OPERATING OVERHEAD->PICKUP USE					5.02	
OPERATING INTEREST AT 9.0%					23.03	
TOTAL CASH OPERATING EXPENSES					\$1,241.58	
RETURNS OVER CASH OPERATING EXPENSES					( \$874.38)	

Notes: The above figures do not include ownership costs, see Table 12B on Next Page for detailed cost allocation.

Table 12B. Allocation of Ownership Costs; Pumpkins, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: AvarE 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: 10/14/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 102.0000/Tn	\$367.20		\$367.20	
TOTAL OPERATING EXPENSES	1,241.58		1,241.58	
RETURN OVER CASH OPERATING EXPENSES		( \$874.38)		( \$874.38)
<b>CASH OVERHEAD EXPENSES</b>				
Taxes, Housing & Insur., Farm Machinery	10.13		10.13	
Wells & Irrig. System	8.16		8.16	
Gen. & Off. Overhead ( 5% of Tot. Oper. Exp.)	62.07		62.07	
General Farm Maint. ( 3% of Tot. Oper. Exp.)	37.25		37.25	
Total Cash Overhead Expenses	<u>117.61</u>		<u>117.61</u>	
Total Cash Oper. & Over. Cost	1,359.20		1,359.20	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		( 992.00)		( 992.00)
<b>CAPITAL ALLOCATIONS (100% Equity)</b>				
Capital Replacement, Machinery & Vehicles			57.98	
Wells & Irrig. System			26.41	
Interest on Equity, Machinery & Vehicles			29.37	
Wells & Irrig. System			14.94	
Total Capital Allocations			<u>128.69</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		>( 992.00)		
RETURNS TO LAND, MANAGEMENT & RISK				>( 1,120.70)
<b>LAND COSTS / OWNERSHIP (100% Equity)</b>				
Property Taxes (\$540 X 16% X .14778)	12.76		12.76	
Opport. Inter. on Land (100% X 6.0% X \$540)			32.40	
Total Land Costs	<u>12.76</u>		<u>45.16</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		>( 1,004.76)		
RETURNS TO MANAGEMENT & RISK				>( 1,165.86)
Management Services ( 8% of Tot. Oper. Exp.)			99.32	
TOTAL OWNERSHIP COST	<u>130.38</u>		<u>390.81</u>	
TOTAL COST	<u>\$1,371.96</u>		<u>\$1,632.39</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		>( \$1,004.76)		
RETURN TO RISK (PROFITS)				>(\$1,265.19)
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BREAK-EVEN PRICE TO COVER OPERATING COST (PER Tn)		\$344.88		\$344.88
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$36.21		\$108.55
BREAK-EVEN PRICE TO COVER TOTAL COST		\$381.10		\$453.44

Table 12C. Variable Operating Costs; Pumpkins, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: Avara 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: 10/14/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)				Times	Tot. Cash Expense	Class	
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				Total
1	Jan	Plow	0.450	0.500	7.28	4.20			11.48	1.0	11.48	L
2	May	Disk	0.225	0.250	2.98	2.10			5.08	1.0	5.08	L
3	May	Landplane	0.360	0.400	4.45	3.36			7.81	1.0	7.81	L
4	May	List	0.225	0.250	3.42	2.10			5.52	1.0	5.52	L
5	May	Buck Rows	0.022	0.025	0.24	0.21			0.45	3.0	1.36	G
6	May	Preirrigate		0.565	32.59	3.96			36.55	1.0	36.55	G
7	May	Mulch	0.225	0.250	3.15	2.10			5.25	1.0	5.25	L
8	Jun	Plant	0.225	0.250	2.65	2.10		393.75	398.50	1.0	398.50	L
9	Jul	Irrigate/Run Fertilizer		0.424	32.59	2.97		10.12	45.68	5.0	228.40	G
10	Jul	Disk Ends	0.023	0.025	0.35	0.21			0.56	2.0	1.12	G
11	Jul	Cultivate	0.225	0.250	2.77	2.10			4.87	2.0	9.74	G
12	Jul	Hand Weeding						75.00	75.00	2.0	150.00	G
13	Aug	Apply Fungicide/Air						8.32	11.38	2.0	39.40	G
14	Sep	Apply Insecticide/Air						8.32	15.87	4.0	96.76	G
15	Oct	Prepare Ends	0.022	0.025	0.33	0.21			0.54	1.0	0.54	H
16	Oct	Pick and Load	2.000	15.554	27.77	112.12			139.89	1.0	139.89	H
17	Oct	Haul 1 MI	3.750	3.750	52.07	31.54			83.61	1.0	83.61	H
18	Oct	Disk Residue	0.225	0.250	2.98	2.10			5.08	1.0	5.08	L
		Pickup Use 20 Mi/Ac	0.670		5.02						5.02	O
		Operating Interest at 9.00%						23.13			23.13	O
TOTAL CASH OPERATING EXPENSES:					\$314.62	\$185.99	\$223.05	\$530.59			\$1,254.25	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)	\$438.72								
Growing (G)	563.32								
Harvest (H)	224.04	Yields		\$76.50	\$91.80	\$102.00	\$112.20	\$127.50	Break-even
Post Harvest (P)	0.00								
Marketing (M)	0.00	-25%	2.7	-991.68	-950.37	-922.83	-895.29	-853.98	443.79
Operating Overhead (O)	28.15	-10%	3.2	-983.98	-934.41	-901.36	-868.31	-818.74	380.19
		Budgeted	3.6	-978.84	-923.76	-887.04	-850.32	-795.24	348.40
Total (T)	\$1,254.24	+10%	3.9	-973.71	-913.12	-872.73	-832.33	-771.75	322.38
		+25%	4.5	-966.00	-897.15	-851.25	-805.35	-736.50	291.16
		Break-even Yield		72.21	34.84	25.90	20.61	15.78	

Table 12D. Resource and Cash Flow Requirements; Pumpkins, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: AvaraE 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: 10/14/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total
JAN C			0.50		7.28	4.20				11.48
MAY C	1.0	8.0	1.74		46.83	13.84				60.68
JUN C			0.27		2.90	2.31		393.75		398.96
JUL C	2.0	16.0	1.14		68.54	8.47	20.24		75.00	172.25
AUG C	2.0	16.0	1.12		68.30	8.26	43.00		91.64	211.20
SEP C	1.0	8.0	0.42		32.59	2.97	73.59		33.28	142.43
OCT C			19.57		83.15	145.97				229.12
Pickup Use 20 Mi/Ac					5.02					5.02
Operating Interest at 9.0%									23.13	23.13
<b>Total</b>	<b>6.0</b>	<b>48.0</b>	<b>24.78</b>		<b>314.62</b>	<b>186.02</b>	<b>136.83</b>	<b>393.75</b>	<b>223.05</b>	<b>1,254.27</b>
%					25.08	14.83	10.91	31.39	17.78	100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	150.5 lbs	Diesel Fuel	61.2 Gal
Total P	0.0 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	2.0 Gal
Total Labor	24.7 Hrs	Electricity/Pumping	2,844.4 KWH
Total Water	48.0 AI	All Direct Energy	18.4 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 150 PTO HP, MFWD	8.27 Hrs	Moldboard Plow, 4-16 2 Way	0.45 Hrs
Landplane 12'X 45'	0.36 Hrs	Disk-Lister, 4 Rw	0.23 Hrs
Power Mulcher, 4 Rw	0.23 Hrs	Flexi-Planter - 4 Units	0.23 Hrs
Cultivator, Sweep, 4 Rw	0.45 Hrs	Vegetable Trailer Flat Bed	5.75 Hrs
		Offset Disk, 12'	0.45 Hrs
		Rowbuck, 10'	0.07 Hrs
		Offset Disk, 16.5'	0.07 Hrs
		Pickup Truck, 1/2 Ton	0.67 Hrs

MATERIALS REQUIREMENTS (/Acre)			
Water, Pump	48.00 AI	Pumpkin Seed (Hyb)	12.00 Th
Benomyl	0.50 Lb	Triadimefon	0.24 Lb
Endosulfan	4.00 Pt	Surfactant (spreader)	4.00 Pt
		32-00-00, URAN 32, Lqd	42.50 Ga
		Fenvalerate	38.40 Oz

LABOR REQUIREMENTS (/Acre)			
Tractor	8.77 Hrs	Irrigators	2.69 Hrs
		Other	13.33 Hrs

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

Table 12E. Schedule of Operations; Pumpkins, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: AvarE 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: 10/14/96

No.	First Month	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	Jan	1.0	Plow	150	Moldboard Plow, 4-16 2	2.00							Tractor
2	May	1.0	Disk	150	Offset Disk, 12'	4.00							Tractor
3	May	1.0	Landplane	150	Landplane 12'X 45'	2.50							Tractor
4	May	1.0	List	150	Disk-Lister, 4 Rw	4.00							Tractor
5	May	3.0	Buck Rows	150	Rowbuck, 10'	40.00							Tractor
6	May	1.0	Preirrigate			1.77	Water, Pump	8.00 AI	48.89 AF				Irrigator
7	May	1.0	Mulch	150	Power Mulcher, 4 Rw	4.00							Tractor
8	Jun	1.0	Plant	150	Flexi-Planter - 4 Units	4.00	Pumpkin Seed (Hyb)	12.00 Th	31.25 Th				Tractor
9	Jul	5.0	Irrigate/Run Fertiliz			2.36	Water, Pump	8.00 AI	48.89 AF				Irrigator
							32-00-00, URAN 32,	8.50 Ga	205.00 Tn				
10	Jul	2.0	Disk Ends	150	Offset Disk, 16.5'	40.00							Tractor
11	Jul	2.0	Cultivate	150	Cultivator, Sweep, 4 Rw	4.00							Tractor
12	Jul	2.0	Hand Weeding		CST Hand Weeding						75.00 Ac		
13	Aug	2.0	Apply Fungicide/Air		CST Air Spray, 5 Gal Mi		Benomyl	0.25 Lb	15.57 Lb	8.32 Ac			
							Triadimefon	0.12 Lb	57.89 Lb				
14	Sep	4.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mi		Fenvalerate	9.60 Oz	120.84 Ga	8.32 Ac			
							Endosulfan	1.00 Pt	34.50 Ga				
							Surfactant (spread	1.00 Pt	13.88 Ga				
15	Oct	1.0	Prepare Ends	150	Offset Disk, 16.5'	40.00							Tractor
16	Oct	1.0	Pick and Load	150	Vegetable Trailer Flat	0.45							Tractor
													Other
17	Oct	1.0	Haul	150	Vegetable Trailer Flat	0.27							Tractor
18	Oct	1.0	Disk Residue	150	Offset Disk, 12'	4.00							Tractor
			Pickup Use 20 Mi/Ac		Pickup Truck, 1/2 Ton	1.50							

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