

**Table 21A. Income and Cash Operating Summary; Garlic, 1999**

COUNTY: Maricopa                      FARM: Maricopa Vegetable                      WATER SOURCE: Salt River Project                      TILLAGE: Conventional  
 CROP: Garlic                              ACRES: 1.0                                      IRRIGATION SYSTEM: Flood Furrow                      SOIL: Sandy-Loam  
 AREA: Salt River Project                      YIELD: 650.0 Ct / Acre                      PREVIOUS CROP: Cotton, Upland                      DATE: 8/9/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Garlic	Crt	650.00	\$2.35	\$1,527.50	\$1,527.50	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)					100.73	_____	
Tractor/Self Propelled					40.29	_____	
Irrigation					50.69	_____	
Other/ Contract					9.75	_____	
Chemicals and Custom Applications					227.28	_____	
Fertilizer					135.78	_____	
Herbicide					91.49	_____	
Farm Machinery and Vehicles					41.17	_____	
Diesel Fuel					15.08	_____	
Repairs and Maintenance					26.09	_____	
Irrigation Water (excluding labor)					14.17	_____	
Water Assessment (See Note Below) **						_____	
Other Purchased Inputs &					108.75	_____	
Seed/Transplants					105.75	_____	
Other Services and Rentals					3.00	_____	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					492.10	_____	
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)					0.49	_____	
Tractor/Self Propelled					0.49	_____	
Farm Machinery and Vehicles					0.47	_____	
Diesel Fuel					0.18	_____	
Repairs and Maintenance					0.29	_____	
Custom Harvest/Post Harvest					780.00	_____	
Other Materials					653.01	_____	
TOTAL HARVEST AND POST HARVEST EXPENSE					1433.97	_____	
OPERATING OVERHEAD PICKUP USE					15.29	_____	
OPERATING INTEREST AT 10.0%					19.25	_____	
TOTAL CASH OPERATING EXPENSES					\$1,960.60	=====	
RETURNS OVER CASH OPERATING EXPENSES					(\$433.10)	_____	

Notes: The above figures do not include ownership costs, see table B for detailed cost allocation.  
 \*\* A water assessment charge of \$20.00 per Acre is included as an ownership cost in Table B.

**Table 21B. Allocations of Ownership Costs; Garlic, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Conventional  
 CROP: Garlic ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 650.0 Ct / Acre PREVIOUS CROP: Cotton, Upland DATE: 8/9/99

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$2.35 / Ct	\$1,527.50		\$1,527.50	
TOTAL OPERATING EXPENSES	\$1,960.60		\$1,960.60	
RETURN OVER CASH OPERATING EXPENSES		(\$433.10)		(\$433.10)
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	5.51		5.51	
General and Office Overhead (5.0% of Total Operating Exp.)	98.03		98.03	
General Farm Maintenance (3.0% of Total Operating Exp.)	58.82		58.82	
Total Cash Overhead Expenses	162.36		162.36	
Total Cash Operating and Overhead Cost	2,122.96		2,122.96	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		(\$595.46)		(\$595.46)
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			30.04	
Interest on Equity, Machinery and Vehicles			12.37	
Total Capital Allocations			42.42	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		(\$595.46)		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$637.88)
Land Cost / Rent or Lease	160.00		160.00	
Water Assessment	20.00		20.00	
Total Land Costs	180.00		180.00	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$775.46)		
RETURNS TO MANAGEMENT AND RISK ----->				(\$817.88)
Management Services (8% of Total Operation Expenses)			156.85	
TOTAL OWNERSHIP COST	342.36		541.62	
TOTAL COST	\$2,302.96		\$2,502.22	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$775.46)		
RETURNS TO RISK (PROFITS) ----->				(\$974.72)
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$3.02		\$3.02
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.53		\$0.83
BREAK-EVEN PRICE TO COVER TOTAL COST		\$3.54		\$3.85

**Table 21C. Variable Operating Costs; Garlic, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Conventional  
 CROP: Garlic ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 650.0 Ct / Acre PREVIOUS CROP: Cotton, Upland DATE: 8/9/99

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	Oct	Disk	0.225	0.250	2.73	2.44			5.17	4.0	20.69	L
2	Oct	Make Borders	0.090	0.100	0.42	0.97			1.40	1.0	1.40	G
3	Oct	Block Borders	0.090	0.100	0.44	0.97			1.42	1.0	1.42	G
4	Nov	Preirrigate		0.800		7.80			7.80	1.0	7.80	G
5	Nov	Knock Borders	0.090	0.100	0.42	0.97			1.40	1.0	1.40	G
6	Nov	Soil Fertility					3.00		3.00	1.0	3.00	G
7	Nov	Apply Fert/Ground	0.180	0.200	0.93	1.95		75.08	77.96	1.0	77.96	G
8	Nov	List	0.225	0.250	1.97	2.44			4.41	1.0	4.41	L
9	Nov	Plant	0.900	2.000	13.02	19.50		105.75	138.27	1.0	138.27	L
10	Nov	Apply Herbicide/Ground	0.225	0.250	1.34	2.44		91.49	95.27	1.0	95.27	G
11	Nov	Irrigate		0.400		3.90		1.29	5.19	11.0	57.06	G
12	Dec	Cultivate	0.225	0.250	2.39	2.44			4.83	1.0	4.83	G
13	Dec	Buck Rows	0.045	0.050	0.19	0.49			0.68	1.0	0.68	G
14	Feb	Apply Fert/Ground	0.300	0.333	3.35	3.25		30.35	36.95	2.0	73.90	G
15	Apr	Prepare Ends	0.045	0.050	0.47	0.49			0.96	1.0	0.96	H
16	May	Harvest 650 Ct					650.00	653.01	1303.01	1.0	1303.01	H
17	May	Haul, Custom 650 Ct					130.00		130.00	1.0	130.00	H
18	Jun	Disk Residue 650 Ct	0.150	0.167	2.39	1.63			4.02	1.0	4.02	L
		Pickup Use60 Mi/Acre	2.000		15.29						15.29	
		Operating Interest at 10.0					19.25				19.25	
TOTAL CASH OPERATING EXPENSES (includes all times over):											1960.60	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 \$20.00 per Acre is included as an ownership cost in Table B.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)							
		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%		
Land Preparation (L)	167.38	Yields	\$1.76	\$2.12	\$2.35	\$2.58	\$2.94	Break-even Price	
Growing (G)	324.72								
Harvest (H)	1,433.97								
Post Harvest (P)	0.00	- 25%	487.5	-742.15	-570.31	-455.75	-341.18	-169.34	3.28
Marketing (M)	0.00	- 10%	585.0	-785.40	-579.19	-441.72	-304.24	-98.03	3.11
Operating Overhead (O)	34.54	Budgeted	650.0	-814.24	-585.11	-432.36	-279.61	-50.49	3.02
		+ 10%	715.0	-843.07	-591.04	-423.01	-254.99	-2.95	2.94
Total (T)	\$1,960.60	+ 25%	812.5	-886.32	-599.92	-408.98	-218.04	68.36	2.85
		Break-even Yield		-1,185.51	-5,772.48	3,654.70	1,387.97	719.03	

**Table 21D. Resource and Cash Flow Requirements; Garlic, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Conventional  
 CROP: Garlic ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 650.0 Ct / Acre PREVIOUS CROP: Cotton, Upland DATE: 8/9/99

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
AUG P			0.10		0.42	0.97				1.40
OCT P			0.60		5.91	5.85				11.76
NOV P	2.0	11.0	4.50	2.50	23.16	43.87	166.58	105.75	3.00	344.85
DEC P	1.0	3.0	0.70	2.50	2.58	6.82				11.90
JAN C	1.0	3.0	0.40			3.90				3.90
FEB C	1.0	3.0	0.73		3.35	7.15	30.35			40.85
MAR C	3.0	9.0	1.53		3.35	14.94	30.35			48.65
APR C	4.0	12.0	1.65	9.17	0.47	16.09				25.73
MAY C								653.01	780.00	1433.01
JUN C			0.17		2.39	1.63				4.02
Pickup Use60 Mi/Acre					15.29					15.29
Operating Interest at 10.0 Water Assessment				**					19.25	19.25
<b>Total</b>	<b>12.0</b>	<b>41.0</b>	<b>10.38</b>	<b>14.17</b>	<b>56.93</b>	<b>101.22</b>	<b>227.28</b>	<b>758.76</b>	<b>802.25</b>	<b>1960.60</b>
<b>%</b>				<b>0.72</b>	<b>2.90</b>	<b>5.16</b>	<b>11.59</b>	<b>38.70</b>	<b>40.92</b>	<b>100.00</b>

TOTAL RESOURCE REQUIREMENTS ( per Acre)

Total N 256.4  
 Total P 212.0  
 Total K 0.0  
 Total Labor 10.4  
 Total Water 41.0

TOTAL ENERGY REQUIREMENTS ( per Acre)

Diesel Fuel 18.9 Gal  
 Unleaded Gas 6.0 Gal  
 All Direct Energy 3.4 M BTU

EQUIPMENT REQUIREMENTS ( per Acre)

Bed Shaper, 4 Rw	0.90 Hr	Blade Scraper, 10'	0.09 Hr	Border Disk, 6' Disk	0.18 Hr
Cultivator, Sweep, 4 Rw	0.22 Hr	Fertilizer Broadcaster,	0.18 Hr	Fertilizer Injector, 4 Row	0.60 Hr
Lister, 5 Bottom	0.22 Hr	Offset Disk, 12'	0.90 Hr	Offset Disk, 13.5'	0.05 Hr
Offset Disk, 18'	0.15 Hr	Pickup Truck, 1/2 Ton	2.00 Hr	Planter/Gramor, 4 Bd,8	0.90 Hr
Rowbuck, 10'	0.05 Hr	Saddle Tk Sprayer, 2 Tk 8	0.22 Hr	Tractor, 50 PTO HP,	0.05 Hr
Tractor, 60 PTO HP,	0.68 Hr	Tractor, 100 PTO HP,	1.77 Hr	Tractor, 125 PTO HP,	1.13 Hr
Tractor, 150 PTO HP,	0.15 Hr				

MATERIALS REQUIREMENT ( per Acre)

11-53-00, Dry	400.00 Lb	32-00-00, URAN 32, Lqd	60.00 Ga	Boxes & Supplies	650.00 Ct
DCPA	14.00 Lb	Garlic Cloves	10.00 C	Water, District	41.00 Al

LABOR REQUIREMENT ( per Acre)

Irrigators	5.20 Hr	Other	1.00 Hr	Tractor	4.18 Hr
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\*NOTE: P = Previous Year C = Current Year N = Next Year

\*\* A water assessment charge of \$20.00 per Acre is included as an ownership cost in Table B.

**Table 21E. Schedule of Operations; Garlic, 1999**

COUNTY: Maricopa      FARM: Maricopa Vegetable      WATER SOURCE: Salt River Project      TILLAGE: Conventional  
 CROP: Garlic      ACRES: 1.0      IRRIGATION SYSTEM: Flood Furrow      SOIL: Sandy-Loam  
 AREA: Salt River Project      YIELD: 650.0 Ct / Acre      PREVIOUS CROP: Cotton, Upland      DATE: 8/9/99

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	Oct	4.0	Disk	125	Offset Disk, 12'	4.00						Tractor
2	Oct	1.0	Make Borders	60	Border Disk, 6' Disk	10.00						Tractor
3	Oct	1.0	Block Borders	60	Blade Scraper, 10'	10.00						Tractor
4	Nov	1.0	Preirrigate			1.25	Water, District	8.00	Al	0.00	AF	Irrigators
5	Nov	1.0	Knock Borders	60	Border Disk, 6' Disk	10.00						Tractor
6	Nov	1.0	Soil Fertility		CST Soil Analysis (Surface)						3.00	Ac
7	Nov	1.0	Apply Fert/Ground	60	Fertilizer Broadcaster,	5.00	11-53-00, Dry	400.00	Lb	355.00	Tn	Tractor
8	Nov	1.0	List	100	Lister, 5 Bottom	4.00						Tractor
9	Nov	1.0	Plant	100	Planter/Gramor, 4 Bd,8 Bed Shaper, 4 Rw	1.00	Garlic Cloves	10.00	C	10.00	CW	Tractor Other
10	Nov	1.0	Apply Herbicide/Ground	60	Saddle Tk Sprayer, 2 Tk 8	4.00	DCPA	14.00	Lb	6.18	Lb	Tractor
11	Nov	11.0	Irrigate			2.50	Water, District	3.00	Al	5.15	AF	Irrigators
12	Dec	1.0	Cultivate	125	Cultivator, Sweep, 4 Rw	4.00						Tractor
13	Dec	1.0	Buck Rows	50	Rowbuck, 10'	20.00						Tractor
14	Feb	2.0	Apply Fert/Ground	100	Fertilizer Injector, 4 Row	3.00	32-00-00, URAN 32,	30.00	Ga	173.00	Tn	Tractor
15	Apr	1.0	Prepare Ends	100	Offset Disk, 13.5'	20.00						Tractor
16	May	1.0	Harvest		CST Harvest Garlic		Boxes & Supplies	650.00	Ct	0.95	Ct	1.00 Ct
17	May	1.0	Haul, Custom		CST Haul Garlic							0.20 Ct
18	Jun	1.0	Disk Residue	150	Offset Disk, 18'	6.00						Tractor
			Pickup use 60 Mi/Ac		Pickup Truck, 1/2 Ton	0.50						

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

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