

**Table 6A. Income and Cash Operating Summary; Spinach, 1998**

COUNTY: Maricopa                      FARM: Maricopa Veg 98                      WATER SOURCE: Salt River Project                      TILLAGE: Double Crop  
 CROP: Spinach                      ACRES: 1.0                      IRRIGATION SYSTEM: Flood Furrow                      SOIL: Sandy-Loam  
 AREA: Salt River Project                      YIELD: 487.0 Ct / Acre                      PREVIOUS CROP: Watermelons                      DATE: 12/10/98

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Spinach	Crt	487.00	\$7.78	\$3,788.86	\$3,788.86	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)						133.73	_____
Tractor/Self Propelled					68.74		_____
Irrigation					58.49		_____
Other/ Contract					6.50		_____
Chemicals and Custom Applications						151.85	_____
Fertilizer					127.96		_____
Insecticide					23.90		_____
Farm Machinery and Vehicles						43.79	_____
Diesel Fuel					17.37		_____
Repairs and Maintenance					26.42		_____
Irrigation Water (excluding labor)						10.00	_____
Water Assessment (See Note Below) **							_____
Other Purchased Inputs &						264.12	_____
Seed/Transplants					186.12		_____
Other Services and Rentals					78.00		_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES						603.50	_____
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)						0.49	_____
Tractor/Self Propelled					0.49		_____
Farm Machinery and Vehicles						0.23	_____
Diesel Fuel					0.09		_____
Repairs and Maintenance					0.14		_____
Custom Harvest/Post Harvest						1582.75	_____
Other Materials						695.25	_____
TOTAL HARVEST AND POST HARVEST EXPENSE						2278.73	_____
OPERATING OVERHEAD PICKUP USE						7.64	_____
OPERATING INTEREST AT 10.0%						9.04	_____
TOTAL CASH OPERATING EXPENSES						\$2,898.91	=====
RETURNS OVER CASH OPERATING EXPENSES						\$889.95	_____

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

\*\* A water assessment charge of \$10.00 per Acre is included as an ownership cost in Table B.

**Table 6B. Allocations of Ownership Costs; Spinach, 1998**

COUNTY: Maricopa FARM: Maricopa Veg 98 WATER SOURCE: Salt River Project  
 CROP: Spinach ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow  
 AREA: Salt River Project YIELD: 487.0 Ct / Acre PREVIOUS CROP: Watermelons

TILLAGE: Double Crop  
 SOIL: Sandy-Loam  
 DATE: 12/10/98

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$7.78 / Ct	\$3,788.86		\$3,788.86	
TOTAL OPERATING EXPENSES	\$2,898.91		\$2,898.91	
RETURN OVER CASH OPERATING EXPENSES		\$889.95		\$889.95
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	5.26		5.26	
General and Office Overhead (5.0% of Total Operating Exp.)	144.95		144.95	
General Farm Maintenance (3.0% of Total Operating Exp.)	86.97		86.97	
Total Cash Overhead Expenses	237.17		237.17	
Total Cash Operating and Overhead Cost	3,136.08		3,136.08	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$652.78		\$652.78
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			28.59	
Interest on Equity, Machinery and Vehicles			13.18	
Total Capital Allocations			41.77	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$652.78		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$611.01
Land Cost / Ownership (100% Equity)				
Property Taxes (\$619.00 X 16.0%X 0.141)	6.99		6.99	
Opportunity Interest on Land (100% X 6.0 X \$619.00)			18.57	
Water Assessment	10.00		10.00	
Total Land Costs	16.99		35.56	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$635.79		
RETURNS TO MANAGEMENT AND RISK ----->				\$575.45
Management Services ( 8% of Total Operation Expenses)			231.91	
TOTAL OWNERSHIP COST	254.16		546.42	
TOTAL COST	\$3,153.07		\$3,445.32	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$635.79		
RETURNS TO RISK (PROFITS) ----->				\$343.54
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$5.95		\$5.95
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.52		\$1.12
BREAK-EVEN PRICE TO COVER TOTAL COST		\$6.47		\$7.07

**Table 6C. Variable Operating Costs; Spinach, 1998**

COUNTY: Maricopa FARM: Maricopa Veg 98 WATER SOURCE: Salt River Project TILLAGE: Double Crop  
 CROP: Spinach ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 487.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 12/10/98

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	Aug	Plow	0.900	1.000	7.54	9.75			17.29	1.0	17.29	L
2	Aug	Disk	0.600	0.667	4.01	6.50			10.52	3.0	31.55	L
3	Aug	Laser Level	0.450	0.500	5.55	4.87			10.42	0.5	5.21	L
4	Aug	Soil Fertility					3.00		3.00	1.0	3.00	G
5	Aug	Apply Fert/Ground	0.090	0.100	0.72	0.97		47.72	49.41	2.0	98.82	G
6	Sep	List	0.300	0.333	2.08	3.25			5.33	1.0	5.33	L
7	Sep	Mulch	0.300	0.333	2.53	3.25			5.78	1.0	5.78	L
8	Sep	Plant	0.600	1.334	4.04	13.00		186.12	203.17	1.0	203.17	L
9	Sep	Buck Rows	0.045	0.050	0.19	0.49			0.68	4.0	2.73	G
10	Sep	Irrigate		1.000		9.75		1.67	11.42	6.0	68.49	G
11	Sep	Disk Ends	0.045	0.050	0.27	0.49			0.76	4.0	3.03	G
12	Oct	Apply Insect./Ground	0.090	0.100	0.46	0.97		9.73	11.16	1.0	11.16	G
13	Oct	Cultivate	0.600	0.667	2.83	6.50			9.33	1.0	9.33	G
14	Oct	Apply Fert/Ground	0.450	0.500	3.73	4.87		32.52	41.12	1.0	41.12	G
15	Oct	Apply Insect./Ground	0.090	0.100	0.46	0.97		14.17	15.61	1.0	15.61	G
16	Oct	Hand Weeding					75.00		75.00	1.0	75.00	G
17	Nov	Prepare Ends	0.045	0.050	0.24	0.49			0.73	1.0	0.73	H
18	Nov	Harvest, Load & Haul 487					1582.75	695.25	2278.00	1.0	2278.00	H
19	Dec	Disk Residue 487 Ct	0.450	0.500	3.01	4.87			7.88	1.0	7.88	L
		Pickup Use30 Mi/Acre	1.000		7.64						7.64	
		Operating Interest at 10.0					9.04				9.04	
TOTAL CASH OPERATING EXPENSES (includes all times over):					52.67	133.22	1669.79	1043.23			2898.91	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 \$10.00 per Acre is included as an ownership cost in Table B.

OPERATING COST SUMMARY BY CLASS

Land Preparation (L)	276.21
Growing (G)	327.29
Harvest (H)	2,278.73
Post Harvest (P)	0.00
Marketing (M)	0.00
Operating Overhead (O)	16.68
Total (T)	2,898.91

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

		Prices					Break-even Price
		- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields		\$5.84	\$7.00	\$7.78	\$8.56	\$9.73	
- 25%	365.3	-199.02	227.23	511.40	795.56	1,221.81	6.38
- 10%	438.3	-114.58	396.92	737.92	1,078.91	1,590.41	6.10
Budgeted	487.0	-58.29	510.04	888.93	1,267.81	1,836.14	5.95
+ 10%	535.7	-1.99	623.17	1,039.94	1,456.72	2,081.88	5.84
+ 25%	608.8	82.44	792.85	1,266.46	1,740.07	2,450.48	5.70
Break-even Yield		537.43	267.43	200.33	160.15	123.11	

**Table 6D. Resource and Cash Flow Requirements; Spinach, 1998**

COUNTY: Maricopa FARM: Maricopa Veg 98 WATER SOURCE: Salt River Project TILLAGE: Double Crop  
 CROP: Spinach ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 487.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 12/10/98

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
AUG C			3.35		20.93	37.76	47.72		3.00	109.41
SEP C	2.0	12.0	4.30		13.14	45.87	47.72	186.12		292.85
OCT C	3.0	18.0	4.57	5.00	7.79	34.49	56.41		75.00	178.69
NOV C	1.0	6.0	1.05	5.00	0.23	10.24		695.25	1582.75	2293.47
DEC C			0.50		2.94	4.87				7.81
Pickup Use30 Mi/Acre					7.64					7.64
Operating Interest at 10.0 Water Assessment				**					9.07	9.07
<b>Total</b>	<b>6.0</b>	<b>36.0</b>	<b>13.77</b>	<b>10.00</b>	<b>52.67</b>	<b>134.22</b>	<b>151.85</b>	<b>881.37</b>	<b>1669.79</b>	<b>2898.91</b>
<b>%</b>				<b>0.34</b>	<b>1.82</b>	<b>4.60</b>	<b>5.24</b>	<b>30.40</b>	<b>57.60</b>	<b>100.00</b>

TOTAL RESOURCE REQUIREMENTS ( per Acre)

Total N 156.0  
 Total P 150.0  
 Total K 0.0  
 Total Labor 13.8  
 Total Water 36.0

TOTAL ENERGY REQUIREMENTS ( per Acre)

Diesel Fuel 21.6 Gal  
 Unleaded Gas 3.0 Gal  
 All Direct Energy 3.4 M BTU

EQUIPMENT REQUIREMENTS ( per Acre)

Bed Shaper, 4 Rw	0.60 Hr	Cultivator, Sweep, 3 Rw	0.60 Hr	Directed Spray Rig, 8	0.18 Hr
Drag Scraper, 14'	0.22 Hr	Fert. Side Dress Unit,	0.45 Hr	Fertilizer Broadcaster,	0.18 Hr
Laser, Complete System	0.22 Hr	Lister, 5 Bottom	0.30 Hr	Moldboard Plow, 3-16 2	0.90 Hr
Offset Disk, 10.5'	0.18 Hr	Offset Disk, 8'	2.30 Hr	Pickup Truck, 1/2 Ton	1.00 Hr
Planter, Planet Jr, 4	0.60 Hr	Power Mulcher, 4 Rw	0.30 Hr	Rowbuck, 10'	0.18 Hr
Tractor, 50 PTO HP,	1.63 Hr	Tractor, 70 PTO HP,	4.35 Hr	Tractor, 100 PTO HP,	0.18 Hr
Tractor, 150 PTO HP,	0.22 Hr				

MATERIALS REQUIREMENT ( per Acre)

15-00-00, Cal. Nit.	240.00 Lb	16-20-00, Dry	750.00 Lb	Endosulfan	1.00 Pt
Methomyl	1.50 Pt	Permethrin	10.00 Oz	Spinach Seed (Hyb)	22.00 Lb
Water, District	36.00 Al	Waxed Cartons	487.00 Ct		

LABOR REQUIREMENT ( per Acre)

Irrigators	6.00 Hr	Other	0.67 Hr	Tractor	7.10 Hr
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\*NOTE: P = Previous Year C = Current Year N = Next Year

\*\* A water assessment charge of \$10.00 per Acre is included as an ownership cost in Table B.

**Table 6E. Schedule of Operations; Spinach, 1998**

COUNTY: Maricopa FARM: Maricopa Veg 98 WATER SOURCE: Salt River Project TILLAGE: Double Crop  
 CROP: Spinach ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Salt River Project YIELD: 487.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 12/10/98

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	Aug	1.0	Plow	70	Moldboard Plow, 3-16 2	1.00						Tractor
2	Aug	3.0	Disk	70	Offset Disk, 8'	1.50						Tractor
3	Aug	0.5	Laser Level	150	Drag Scraper, 14' Laser, Complete System	2.00						Tractor
4	Aug	1.0	Soil Fertility		CST Soil Analysis (Surface)						3.00 Ac	
5	Aug	2.0	Apply Fert/Ground	100	Fertilizer Broadcaster,	10.00	16-20-00, Dry	375.00 Lb	240.67 Tn			Tractor
6	Sep	1.0	List	70	Lister, 5 Bottom	3.00						Tractor
7	Sep	1.0	Mulch	70	Power Mulcher, 4 Rw	3.00						Tractor
8	Sep	1.0	Plant	70	Planter, Planet Jr, 4 Unit/2R Bed Shaper, 4 Rw	1.50	Spinach Seed (Hyb)	22.00 Lb	8.00 Lb			Tractor Other
9	Sep	4.0	Buck Rows	50	Rowbuck, 10'	20.00						Tractor
10	Sep	6.0	Irrigate			1.00	Water, District	6.00 Al	3.33 AF			Irrigators
11	Sep	4.0	Disk Ends	50	Offset Disk, 10.5'	20.00						Tractor
12	Oct	1.0	Apply Insect./Ground	50	Directed Spray Rig, 8 Row	10.00	Methomyl	1.50 Pt	49.05 Ga			Tractor
13	Oct	1.0	Cultivate	50	Cultivator, Sweep, 3 Rw	1.50						Tractor
14	Oct	1.0	Apply Fert/Ground	50	Fert. Side Dress Unit, 4Rw	2.00	15-00-00, Cal. Nit.	240.00 Lb	256.25 Tn			Tractor
15	Oct	1.0	Apply Insect./Ground	50	Directed Spray Rig, 8 Row	10.00	Permethrin Endosulfan	10.00 Oz 1.00 Pt	115.83 Ga 34.80 Ga			Tractor
16	Oct	1.0	Hand Weeding		CST Hand Weeding						75.00 Ac	
17	Nov	1.0	Prepare Ends	50	Offset Disk, 8'	20.00						Tractor
18	Nov	1.0	Harvest, Load & Haul		CST Harvest Spinach		Waxed Cartons	487.00 Ct	1.35 Ct		3.25 Ct	
19	Dec	1.0	Disk Residue	70	Offset Disk, 8'	2.00						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.