

**Table 15A. Income and Cash Operating Summary; Spinach, 2001**

COUNTY: Maricopa                      FARM: Maricopa Veg                      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: 494.0 Ct / Acre                      PREVIOUS CROP: Watermelons                      DATE: 9/11/01

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Spinach	Ctrn	494.00	\$14.18	\$7,004.92	\$7,004.92	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					127.88	_____
Tractor/Self Propelled				69.39		_____
Irrigation				58.49		_____
Chemicals and Custom Applications					232.53	_____
Fertilizer				134.59		_____
Insecticide				24.03		_____
Herbicide				73.91		_____
Farm Machinery and Vehicles					70.95	_____
Diesel Fuel				31.55		_____
Repairs and Maintenance				39.40		_____
Irrigation Water (excluding labor)					10.00	_____
Water Assessment (See Note Below) **						_____
Other Purchased Inputs &					264.03	_____
Seed/Transplants				186.03		_____
Other Services and Rentals				78.00		_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					705.39	_____
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					0.49	_____
Tractor/Self Propelled				0.49		_____
Farm Machinery and Vehicles					0.24	_____
Diesel Fuel				0.09		_____
Repairs and Maintenance				0.14		_____
Custom Harvest/Post Harvest					1605.50	_____
Other Materials					704.91	_____
TOTAL HARVEST AND POST HARVEST EXPENSE					2311.14	_____
OPERATING OVERHEAD -> PICKUP USE					7.63	_____
OPERATING INTEREST AT 10.0%					9.84	_____
TOTAL CASH OPERATING EXPENSES					\$3,034.00	_____
RETURNS OVER CASH OPERATING EXPENSES					\$3,970.92	_____

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

\*\* A water assessment charge of \$10.14 per Acre is included as an ownership cost in Table B.

**Table 15B. Allocations of Ownership Costs; Spinach, 2001**

COUNTY: Maricopa      FARM: Maricopa Veg      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: 494.0 Ct / Acre      PREVIOUS CROP: Watermelons      DATE: 9/11/01

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$14.18 / Ct	\$7,004.92		\$7,004.92	
TOTAL OPERATING EXPENSES	\$3,034.00		\$3,034.00	
RETURN OVER CASH OPERATING EXPENSES		\$3,970.92		\$3,970.92
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	7.97		7.97	
General and Office Overhead ( 5.0% of Total Operating Exp.)	151.70		151.70	
General Farm Maintenance ( 3.0% of Total Operating Exp.)	91.02		91.02	
Total Cash Overhead Expenses	250.69		250.69	
Total Cash Operating and Overhead Cost	3,284.69		3,284.69	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$3,720.23		\$3,720.23
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			42.72	
Interest on Equity, Machinery and Vehicles			19.90	
Total Capital Allocations			62.61	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$3,720.23		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$3,657.61
Land Cost / Rent or Lease	200.00		200.00	
Water Assessment **	10.14		10.14	
Total Land Costs	210.13		210.13	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$3,510.09		
RETURNS TO MANAGEMENT AND RISK ----->				\$3,447.48
Management Services ( 8% of Total Operation Expenses)			242.72	
TOTAL OWNERSHIP COST	460.83		766.16	
TOTAL COST	\$3,494.83		\$3,800.16	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$3,510.09		
RETURNS TO RISK (PROFITS) ----->				\$3,204.76
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 )		\$6.14		\$6.14
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.93		\$1.55
BREAK-EVEN PRICE TO COVER TOTAL COST		\$7.07		\$7.69

**Table 15C. Variable Operating Costs; Spinach, 2001**

COUNTY: Maricopa FARM: Maricopa Veg 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: 494.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 9/11/01

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	Aug	Plow	0.900	1.000	15.16	9.75				24.91	1.0	24.91	L
2	Aug	Disk	0.600	0.667	10.58	6.50				17.08	2.0	34.16	L
3	Aug	Laser Level	0.450	0.500	6.62	4.87				11.50	0.5	5.75	L
4	Aug	Soil Fertility					3.00			3.00	1.0	3.00	G
5	Aug	Apply Fert/Ground	0.090	0.100	0.71	0.97		52.32		54.01	2.0	108.02	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	0.667	4.04	6.50		186.03		196.57	1.0	196.57	L
9	Sep	Apply Herbicide/Ground	0.150	0.167	1.62	1.62		73.91		77.15	1.0	77.15	G
10	Sep	Buck Rows	0.045	0.050	0.19	0.49				0.68	3.0	2.05	G
11	Sep	Irrigate		1.000		9.75		1.67		11.42	6.0	68.49	G
12	Sep	Disk Ends	0.045	0.050	0.27	0.49				0.76	3.0	2.27	G
13	Oct	Apply Insect./Ground	0.090	0.100	0.46	0.97		9.70		11.13	1.0	11.13	G
14	Oct	Cultivate	0.600	0.667	2.83	6.50				9.33	2.0	18.65	G
15	Oct	Apply Fert/Ground	0.450	0.500	3.73	4.87		29.95		38.55	1.0	38.55	G
16	Oct	Apply Insect./Ground	0.090	0.100	0.46	0.97		14.33		15.77	1.0	15.77	G
17	Oct	Hand Weeding					75.00			75.00	1.0	75.00	G
18	Nov	Prepare Ends	0.045	0.050	0.24	0.49				0.73	1.0	0.73	H
19	Nov	Harvest, Load & Haul 494					1605.50	704.91		2310.41	1.0	2310.41	H
20	Dec	Disk Residue 494 Ct	0.450	0.500	7.93	4.87				12.81	1.0	12.81	L
		Pickup Use 30 Mi/Acre	1.000		7.63							7.63	
		Operating Interest at 10.0					9.84					9.84	
TOTAL CASH OPERATING EXPENSES (includes all times over):											3034.00	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 \$10.14 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)	285.30	Yields	\$10.64	\$12.76	\$14.18	\$15.60	\$17.73	Break-even Price	
Growing (G)	420.09								
Harvest (H)	2,311.14								
Post Harvest (P)	0.00	- 25%	370.5	1,493.89	2,281.95	2,807.32	3,332.69	4,120.74	6.60
Marketing (M)	0.00	- 10%	444.6	1,935.28	2,880.94	3,511.38	4,141.83	5,087.49	6.28
Operating Overhead (O)	17.47	Budgeted	494.0	2,229.53	3,280.27	3,980.76	4,681.25	5,731.99	6.12
		+ 10%	543.4	2,523.79	3,679.60	4,450.14	5,220.68	6,376.49	5.99
Total (T)	\$3,034.00	+ 25%	617.5	2,965.17	4,278.59	5,154.21	6,029.82	7,343.24	5.83
		Break-even Yield		119.70	88.21	75.04	65.30	54.65	

**Table 15D. Resource and Cash Flow Requirements; Spinach, 2001**

COUNTY: Maricopa FARM: Maricopa Veg 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: 494.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 9/11/01

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
AUG C			2.68		40.34	26.16	52.32		3.00	121.83
SEP C	2.0	12.0	3.70		11.45	36.07	126.23	186.03		359.78
OCT C	3.0	18.0	4.57	5.00	8.40	44.52	53.98		75.00	186.90
NOV C	1.0	6.0	1.72	5.00	3.06	16.74		704.91	1605.50	2335.22
DEC C			0.50		7.93	4.87				12.80
Pickup Use 30 Mi/Acre					7.63					7.63
Operating Interest at 10.0									9.84	9.84
Water Assessment				**						
<b>Total</b>	<b>6.0</b>	<b>36.0</b>	<b>13.17</b>	<b>10.00</b>	<b>78.81</b>	<b>128.38</b>	<b>232.53</b>	<b>890.94</b>	<b>1693.34</b>	<b>3034.00</b>
<b>%</b>				<b>0.33</b>	<b>2.60</b>	<b>4.23</b>	<b>7.66</b>	<b>29.37</b>	<b>55.81</b>	<b>100.00</b>

**TOTAL RESOURCE REQUIREMENTS (per Acre)**

Total N 172.2  
 Total P 288.0  
 Total Labor 13.2  
 Total Water 36.0

**TOTAL ENERGY REQUIREMENTS (per Acre)**

Diesel Fuel 37.2 Gal  
 Unleaded Gas 3.0 Gal  
 All Direct Energy 5.5 M BTU

**EQUIPMENT REQUIREMENTS (per Acre)**

Bed Shaper, 4 Rw	0.60 Hr	Cultivator, Sweep, 3 Rw	1.20 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, 4-16 2	0.90 Hr
Offset Disk, 10.5'	0.14 Hr	Offset Disk, 16.5'	1.65 Hr	Offset Disk, 8'	0.05 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'	0.14 Hr	Saddle Tk Sprayer, 2 Tk 8	0.15 Hr	Tractor, 50 PTO HP,	2.14 Hr
Tractor, 70 PTO HP,	1.20 Hr	Tractor, 100 PTO HP	0.15 Hr	Tractor, 100 PTO HP,	0.18 Hr
Tractor, 175 PTO HP,	2.77 Hr				

**MATERIALS REQUIREMENT (per Acre)**

11-48-00, Dry	600.00 Lb	32-00-00, URAN 32, Lqd	30.00 Ga	Benefin	2.00 Pt
Endosulfan	1.00 Pt	Methomyl	1.50 Pt	Permethrin	10.00 Oz
Pronamide	2.00 Lb	Spinach Seed (Hyb)	22.00 Lb	Water, District	36.00 Al
Waxed Cartons	494.00 Ct				

**LABOR REQUIREMENT (per Acre)**

Irrigators 6.00 Hr Tractor 7.17 Hr

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

\*\* A water assessment charge of \$10.14 per Acre is included as an ownership cost in Table B.

**Table 15E. Schedule of Operations; Spinach, 2001**

COUNTY: Maricopa FARM: Maricopa Veg 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: 494.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 9/11/01

First No. Month Times	Operation	Equipment/ Custom Oper HP Self-Prop./ Implement	Job Rate Acre/Hr	----- Material Use and Cost Name	----- Appl. Rate	----- \$ / Unit	----- Service Cost \$ / Unit	Labor Type
Aug 1.0	Plow	175 Moldboard Plow, 4-16 2	1.00					Tractor
Aug 2.0	Disk	175 Offset Disk, 16.5'	1.50					Tractor
Aug 0.5	Laser Level	175 Drag Scraper, 14' Laser, Complete System	2.00					Tractor
Aug 1.0	Soil Fertility	CST Soil Analysis (Surface)					3.00 Ac	
Aug 2.0	Apply Fert/Ground	100 Fertilizer Broadcaster,	10.00	11-48-00, Dry	300.00 Lb	330.00 Tn		Tractor
Sep 1.0	List	70 Lister, 5 Bottom	3.00					Tractor
Sep 1.0	Mulch	70 Power Mulcher, 4 Rw	3.00					Tractor
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
Sep 1.0	Apply Herbicide/Ground	100 Saddle Tk Sprayer, 2 Tk 8	6.00	Benefin Pronamide	2.00 Pt 2.00 Lb	8.69 Ga 26.27 Lb		Tractor
Sep 3.0	Buck Rows	50 Rowbuck, 10'	20.00					Tractor
Sep 6.0	Irrigate		1.00	Water, District	6.00 Al	3.33 AF		Irrigators
Sep 3.0	Disk Ends	50 Offset Disk, 10.5'	20.00					Tractor
Oct 1.0	Apply Insect./Ground	50 Directed Spray Rig, 8 Row	10.00	Methomyl	1.50 Pt	48.94 Ga		Tractor
Oct 2.0	Cultivate	50 Cultivator, Sweep, 3 Rw	1.50					Tractor
Oct 1.0	Apply Fert/Ground	50 Fert. Side Dress Unit, 4Row	2.00	32-00-00, URAN 32,	30.00 Ga	170.80 Tn		Tractor
Oct 1.0	Apply Insect./Ground	50 Directed Spray Rig, 8 Row	10.00	Permethrin Endosulfan	10.00 Oz 1.00 Pt	120.50 Ga 33.17 Ga		Tractor
Oct 1.0	Hand Weeding	CST Hand Weeding					75.00 Ac	
Nov 1.0	Prepare Ends	50 Offset Disk, 8'	20.00					Tractor
Nov 1.0	Harvest, Load & Haul	CST Harvest Spinach		Waxed Cartons	494.00 Ct	1.35 Ct	3.25 Ct	
Dec 1.0	Disk Residue Pickup use 30 Mi/Ac	175 Offset Disk, 16.5' Pickup Truck, 1/2 Ton	2.00 1.00					Tractor

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

**Table 15F. Operations Calendar; Spinach, 2001**

COUNTY: Maricopa      FARM: Maricopa Veg      WATER SOURCE: SRP      TILLAGE: Double Crop  
 CROP: Spinach      ACRES: 1.0      IRRIGATION SYSTEM: Flood Furrow      SOIL: Sandy-Loam  
 AREA: Salt River Project      YIELD: 494 Ct./Acre      PREVIOUS CROP: Watermelons      DATE: 09/17/2001

No.	Operation	Month and Times Operation Performed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Rip								1.0 C				
2	Disk								2.0 C				
3	Laser Level								0.5 C				
4	Soil Fertility								1.0 C				
5	Apply Fert/Ground								1.0 C	1.0 C			
6	List									1.0 C			
7	Mulch									1.0 C			
8	Plant									1.0 C			
9	Apply Herbicide/Ground									1.0 C			
10	Buck Rows									1.0 C	2.0 C		
11	Irrigate									2.0 C	3.0 C	1.0 C	
12	Disk Ends									1.0 C	2.0 C		
13	Apply Insect./Ground										1.0 C		
14	Cultivate										1.0 C	1.0 C	
15	Apply Fert/Ground										1.0 C		
16	Apply Insect./Ground										1.0 C		
17	Hand Weeding										1.0 C		
18	Prepare Ends											1.0 C	
19	Harvest, Load & Haul											1.0 C	
20	Disk Residue												1.0 C

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