

**Table 23A. Income and Cash Operating Summary; Spring Turnips, 1999**

COUNTY: Maricopa                      FARM: Maricopa Vegetable                      WATER SOURCE: Roosevelt Irrigation                      TILLAGE: Double Crop  
 CROP: Turnips                      ACRES: 1.0                      IRRIGATION SYSTEM: Flood Furrow                      SOIL: Sandy-Loam  
 AREA: Roosevelt ID                      YIELD: 513.0 Ct / Acre                      PREVIOUS CROP: Safflower                      DATE: 8/9/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Turnips	Crtn	513.00	\$7.16	\$3,673.08	\$3,673.08	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)					134.83	_____	
Tractor/Self Propelled					48.26	_____	
Irrigation					81.70	_____	
Other/ Contract					4.87	_____	
Chemicals and Custom Applications					79.86	_____	
Fertilizer					63.59	_____	
Insecticide					12.97	_____	
Herbicide					3.30	_____	
Farm Machinery and Vehicles					42.04	_____	
Diesel Fuel					16.30	_____	
Repairs and Maintenance					25.75	_____	
Irrigation Water (excluding labor)					80.50	_____	
Water Assessment (See Note Below) **						_____	
Other Purchased Inputs & Seed/Transplants					39.93	_____	
Other Services and Rentals					3.00	_____	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					380.15	_____	
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)					97.48	_____	
Other/Contract					97.48	_____	
Custom Harvest/Post Harvest					896.00	_____	
Other Materials					388.79	_____	
TOTAL HARVEST AND POST HARVEST EXPENSE					1382.27	_____	
OPERATING OVERHEAD PICKUP USE					7.64	_____	
OPERATING INTEREST AT 10.0%					3.90	_____	
TOTAL CASH OPERATING EXPENSES					\$1,773.97	=====	
RETURNS OVER CASH OPERATING EXPENSES					\$1,899.11	_____	

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

\*\* A water assessment charge of \$7.50 per Acre is included as an ownership cost in Table B.

**Table 23B. Allocations of Ownership Costs; Spring Turnips, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Roosevelt Irrigation TILLAGE: Double Crop  
 CROP: Turnips ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Roosevelt ID YIELD: 513.0 Ct / Acre PREVIOUS CROP: Safflower 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 \$7.16 / Ct	\$3,673.08		\$3,673.08	
TOTAL OPERATING EXPENSES	\$1,773.97		\$1,773.97	
RETURN OVER CASH OPERATING EXPENSES		\$1,899.11		\$1,899.11
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	4.74		4.74	
General and Office Overhead (5.0% of Total Operating Exp.)	88.70		88.70	
General Farm Maintenance (3.0% of Total Operating Exp.)	53.22		53.22	
Total Cash Overhead Expenses	146.65		146.65	
Total Cash Operating and Overhead Cost	1,920.62		1,920.62	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$1,752.46		\$1,752.46
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			26.46	
Interest on Equity, Machinery and Vehicles			11.12	
Total Capital Allocations			37.58	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$1,752.46		\$1,714.88
RETURNS TO LAND, MANAGEMENT AND RISK ----->				
Land Cost / Rent or Lease	160.00		160.00	
Water Assessment	7.50		7.50	
Total Land Costs	167.50		167.50	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$1,584.96		\$1,547.38
RETURNS TO MANAGEMENT AND RISK ----->				
Management Services (8% of Total Operation Expenses)			141.92	
TOTAL OWNERSHIP COST	314.15		493.66	
TOTAL COST	\$2,088.12		\$2,267.62	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$1,584.96		\$1,405.46
RETURNS TO RISK (PROFITS) ----->				
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$3.46		\$3.46
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$0.61		\$0.96
BREAK-EVEN PRICE TO COVER TOTAL COST		\$4.07		\$4.42

**Table 23C. Variable Operating Costs; Spring Turnips, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Roosevelt Irrigation TILLAGE: Double Crop  
 CROP: Turnips ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Roosevelt ID YIELD: 513.0 Ct / Acre PREVIOUS CROP: Safflower 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	0.150	0.167	2.39	1.63		4.02	2.0	8.04	L
2	Oct	Plow	0.300	0.333	4.65	3.25		7.90	1.0	7.90	L
3	Oct	Landplane	0.225	0.250	2.82	2.44		5.25	1.0	5.25	L
4	Oct	List	0.225	0.250	1.97	2.44		4.41	1.0	4.41	L
5	Oct	Soil Fertility					3.00	3.00	1.0	3.00	G
6	Oct	Apply Fert/Ground	0.300	0.333	3.35	3.25		34.86	1.0	34.86	G
7	Oct	Apply Herbicide/Ground	0.225	0.250	1.18	2.44	3.30	6.91	1.0	6.91	G
8	Oct	Mulch	0.225	0.250	2.80	2.44		5.24	1.0	5.24	L
9	Nov	Plant	0.450	1.000	3.91	9.75	39.93	53.59	1.0	53.59	L
10	Nov	Buck Rows	0.045	0.050	0.19	0.49		0.68	1.0	0.68	G
11	Nov	Irrigate		2.381		23.21	23.00	46.21	1.0	46.21	G
12	Nov	Irrigate		1.000		9.75	9.58	19.33	6.0	115.99	G
13	Nov	Cultivate	0.450	0.500	2.92	4.87		7.79	3.0	23.38	G
14	Nov	Apply Insect./Ground	0.180	0.200	0.94	1.95	6.48	9.38	2.0	18.75	G
15	Nov	Apply Fert/Ground	0.300	0.333	3.35	3.25	35.33	41.93	1.0	41.93	G
16	Jan	Harvest 640 Ct					768.00	768.00	1.0	768.00	H
17	Jan	Haul, Custom 640 Ct					128.00	128.00	1.0	128.00	H
18	Jan	Process/Cooling 640 Ct		10.00		97.48	388.79	486.27	1.0	486.27	P
19	Jan	Disk Residue 640 Ct	0.150	0.167	2.39	1.63		4.02	1.0	4.02	L
		Pickup Use30 Mi/Acre	1.000		7.64			7.64		7.64	
		Operating Interest at 10.0					3.90			3.90	
TOTAL CASH OPERATING EXPENSES (includes all times over):										1773.97	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 \$7.50 per Acre is included as an ownership cost in Table B.

OPERATING COST SUMMARY BY CLASS

Land Preparation (L)	88.44
Growing (G)	291.71
Harvest (H)	896.00
Post Harvest (P)	486.27
Marketing (M)	0.00
Operating Overhead (O)	11.54
Total (T)	\$1,773.97

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

Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields	\$5.37	\$6.44	\$7.16	\$7.88	\$8.95	Break-even Price
- 25%	384.8	637.25	1,050.47	1,325.95	1,601.43	2,014.65
- 10%	461.7	843.13	1,338.99	1,669.57	2,000.15	2,496.01
Budgeted	513.0	980.38	1,531.34	1,898.65	2,265.96	2,816.92
+ 10%	564.3	1,117.63	1,723.69	2,127.73	2,531.77	3,137.83
+ 25%	641.3	1,323.51	2,012.22	2,471.35	2,930.49	3,619.19
Break-even Yield	146.57	104.59	87.82	75.68	62.69	

**Table 23D. Resource and Cash Flow Requirements; Spring Turnips, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Roosevelt Irrigation TILLAGE: Double Crop  
 CROP: Turnips ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Roosevelt ID YIELD: 513.0 Ct / Acre PREVIOUS CROP: Safflower 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
OCT P			2.00		21.55	19.50	31.56		3.00	75.61
NOV P	3.0	22.0	7.16	42.17	15.18	69.84	48.30	39.93		215.41
DEC P	3.0	15.0	3.50	28.75	2.92	34.12				65.79
JAN C	1.0	5.0	11.17	9.58	2.39	108.86		388.79	896.00	1405.63
Pickup Use30 Mi/Acre					7.64					7.64
Operating Interest at 10.0									3.90	3.90
Water Assessment				**						
<b>Total</b>	<b>7.0</b>	<b>42.0</b>	<b>23.83</b>	<b>80.50</b>	<b>49.68</b>	<b>232.32</b>	<b>79.86</b>	<b>428.72</b>	<b>902.90</b>	<b>1773.97</b>
<b>%</b>				<b>4.54</b>	<b>2.80</b>	<b>13.10</b>	<b>4.50</b>	<b>24.17</b>	<b>50.90</b>	<b>100.00</b>

## TOTAL RESOURCE REQUIREMENTS ( per Acre)

Total N 45.1  
 Total P 153.5  
 Total K 0.0  
 Total Labor 23.8  
 Total Water 42.0

## TOTAL ENERGY REQUIREMENTS ( per Acre)

Diesel Fuel 20.2 Gal  
 Unleaded Gas 3.0 Gal  
 All Direct Energy 3.2 M BTU

## EQUIPMENT REQUIREMENTS ( per Acre)

Cultivator, Sweep, 4 Rw	1.35 Hr	Fertilizer Injector, 4 Row	0.60 Hr	Landplane 12'X 45'	0.22 Hr
Lister, 5 Bottom	0.22 Hr	Moldboard Plow, 5-16 2	0.30 Hr	Offset Disk, 18'	0.45 Hr
Pickup Truck, 1/2 Ton	1.00 Hr	Planter, Stanhay, 2 Row	0.45 Hr	Power Mulcher, 6 Rw	0.22 Hr
Rowbuck, 10'	0.05 Hr	Saddle Tk Sprayer, 2 Tk 8	0.59 Hr	Tractor, 50 PTO HP,	0.63 Hr
Tractor, 70 PTO HP,	1.80 Hr	Tractor, 100 PTO HP,	1.05 Hr	Tractor, 150 PTO HP,	0.98 Hr

## MATERIALS REQUIREMENT ( per Acre)

10-34-00, Lqd	39.60 Ga	Boxes & Supplies	387.00 Ct	Line substitute	8.00 Ga
Methomyl	2.00 Pt	Trifluralin	1.00 Pt	Turnip Sd (Hyb)	1.50 Lb
Water, District	42.00 Al				

## LABOR REQUIREMENT ( per Acre)

Irrigators	8.38 Hr	Other	0.50 Hr	Packer-Loader	10.00 Hr
Tractor	4.95 Hr				

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

\*\* A water assessment charge of \$7.50 per Acre is included as an ownership cost in Table B.

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**Table 23E. Schedule of Operations; Spring Turnips, 1999**

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Roosevelt Irrigation TILLAGE: Double Crop  
 CROP: Turnips ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam  
 AREA: Roosevelt ID YIELD: 513.0 Ct / Acre PREVIOUS CROP: Safflower 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	2.0	Disk	150	Offset Disk, 18'	6.00						Tractor	
2	Oct	1.0	Plow	150	Moldboard Plow, 5-16 2	3.00						Tractor	
3	Oct	1.0	Landplane	150	Landplane 12'X 45'	4.00						Tractor	
4	Oct	1.0	List	100	Lister, 5 Bottom	4.00						Tractor	
5	Oct	1.0	Soil Fertility		CST Soil Analysis (Surface)						3.00	Ac	
6	Oct	1.0	Apply Fert/Ground	100	Fertilizer Injector, 4 Row	3.00	10-34-00, Lqd	17.60	Ga	266.40	Tn	Tractor	
7	Oct	1.0	Apply Herbicide/Ground	50	Saddle Tk Sprayer, 2 Tk 8	4.00	Trifluralin	1.00	Pt	24.95	Ga	Tractor	
							Line substitute	8.00	Ga	0.00	Ga		
8	Oct	1.0	Mulch	100	Power Mulcher, 6 Rw	4.00						Tractor	
9	Nov	1.0	Plant	70	Planter, Stanhay, 2 Row	2.00	Turnip Sd (Hyb)	1.50	Lb	25.17	Lb	Tractor	
												Other	
10	Nov	1.0	Buck Rows	50	Rowbuck, 10'	20.00						Tractor	
11	Nov	1.0	Irrigate			0.42	Water, District	12.00	Al	23.00	AF	Irrigators	
12	Nov	6.0	Irrigate			1.00	Water, District	5.00	Al	23.00	AF	Irrigators	
13	Nov	3.0	Cultivate	70	Cultivator, Sweep, 4 Rw	2.00						Tractor	
14	Nov	2.0	Apply Insect./Ground	50	Saddle Tk Sprayer, 2 Tk 8	5.00	Methomyl	1.00	Pt	49.05	Ga	Tractor	
15	Nov	1.0	Apply Fert/Ground	100	Fertilizer Injector, 4 Row	3.00	10-34-00, Lqd	22.00	Ga	266.40	Tn	Tractor	
16	Jan	1.0	Harvest		CST Harvest Turnips							1.20	Ct
17	Jan	1.0	Haul, Custom		CST Haul Turnips							0.20	Ct
18	Jan	1.0	Process/Cooling			0.10	Boxes & Supplies	387.00	Ct	0.95	Ct	Packer-Loa	
19	Jan	1.0	Disk Residue	150	Offset Disk, 18'	6.00						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.