

Table 20A. Income and Cash Operating Summary; Beets, 1999

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Double Crop
 CROP: Beets ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 305.0 Ct / Acre PREVIOUS CROP: Watermelons DATE: 8/9/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Beets	Crt	305.00	\$9.24	\$2,818.20	\$2,818.20	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)						139.01	_____
Tractor/Self Propelled					55.16		_____
Irrigation					81.42		_____
Other/ Contract					2.44		_____
Chemicals and Custom Applications						112.24	_____
Fertilizer					83.45		_____
Insecticide					17.85		_____
Other Chemicals					10.94		_____
Farm Machinery and Vehicles						50.72	_____
Diesel Fuel					20.44		_____
Gasoline					0.91		_____
Repairs and Maintenance					29.37		_____
Irrigation Water (excluding labor)						15.83	_____
Water Assessment (See Note Below) **							_____
Other Purchased Inputs &						56.96	_____
Seed/Transplants					53.96		_____
Other Services and Rentals					3.00		_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES						374.77	_____
CASH HARVEST AND POST HARVEST EXPENSES							
Paid Labor (including benefits)						97.48	_____
Other/Contract					97.48		_____
Custom Harvest/Post Harvest						1360.00	_____
Other Materials						460.12	_____
TOTAL HARVEST AND POST HARVEST EXPENSE						1917.60	_____
OPERATING OVERHEAD PICKUP USE						10.19	_____
OPERATING INTEREST AT 10.0%						7.60	_____
TOTAL CASH OPERATING EXPENSES						\$2,310.17	=====
RETURNS OVER CASH OPERATING EXPENSES						\$508.03	_____

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 20B. Allocations of Ownership Costs; Beets, 1999

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Double Crop
 CROP: Beets ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 305.0 Ct / Acre PREVIOUS CROP: Watermelons 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 \$9.24 / Ct	\$2,818.20		\$2,818.20	
TOTAL OPERATING EXPENSES	\$2,310.17		\$2,310.17	
RETURN OVER CASH OPERATING EXPENSES		\$508.03		\$508.03
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	5.88		5.88	
General and Office Overhead (5.0% of Total Operating Exp.)	115.51		115.51	
General Farm Maintenance (3.0% of Total Operating Exp.)	69.31		69.31	
Total Cash Overhead Expenses	190.69		190.69	
Total Cash Operating and Overhead Cost	2,500.86		2,500.86	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$317.34		\$317.34
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			31.28	
Interest on Equity, Machinery and Vehicles			12.69	
Total Capital Allocations			43.97	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$317.34		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$273.37
Land Cost / Rent or Lease	160.00		160.00	
Water Assessment	10.00		10.00	
Total Land Costs	170.00		170.00	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$147.34		
RETURNS TO MANAGEMENT AND RISK ----->				\$103.37
Management Services (8% of Total Operation Expenses)			184.81	
TOTAL OWNERSHIP COST	360.69		589.47	
TOTAL COST	\$2,670.86		\$2,899.64	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$147.34		
RETURNS TO RISK (PROFITS) ----->				(\$81.44)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$7.57		\$7.57
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$1.18		\$1.93
BREAK-EVEN PRICE TO COVER TOTAL COST		\$8.76		\$9.51

Table 20C. Variable Operating Costs; Beets, 1999

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Double Crop
 CROP: Beets ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 305.0 Ct / Acre PREVIOUS CROP: Watermelons 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	Jun	Plow	0.450	0.500	6.35	4.87			11.23	1.0	11.23	L
2	Jun	Disk	0.225	0.250	3.22	2.44			5.66	3.0	16.98	L
3	Jun	Landplane	0.225	0.250	2.82	2.44			5.25	2.0	10.51	L
4	Jun	Make Borders	0.090	0.100	0.48	0.97			1.45	1.0	1.45	G
5	Jun	Block Borders	0.090	0.100	0.67	0.97			1.65	1.0	1.65	G
6	Jul	Preirrigate		0.800		7.80			7.80	1.0	7.80	G
7	Jul	Knock Borders	0.180	0.200	0.95	1.95			2.90	1.0	2.90	G
8	Jul	List	0.225	0.250	1.97	2.44			4.41	1.0	4.41	L
9	Jul	Soil Fertility					3.00		3.00	1.0	3.00	G
10	Aug	Apply Fert/Ground	0.300	0.333	2.45	3.25		58.16	63.86	1.0	63.86	G
11	Aug	Shape Beds	0.225	0.250	1.69	2.44			4.13	1.0	4.13	L
12	Sep	Plant	0.225	0.500	1.52	4.87		53.96	60.36	1.0	60.36	L
13	Sep	Disk Ends	0.022	0.025	0.14	0.24			0.39	1.0	0.39	G
14	Sep	Buck Rows	0.022	0.025	0.09	0.24			0.34	1.0	0.34	G
15	Sep	Make Ditches	0.022	0.025	0.12	0.24			0.36	1.0	0.36	G
16	Sep	Irrigate		3.571		34.81			34.81	1.0	34.81	G
17	Oct	Apply Insect./Ground	0.180	0.200	0.94	1.95		5.95	8.84	1.0	8.84	G
18	Oct	Irrigate		2.381		23.21		9.17	32.38	1.0	32.38	G
19	Oct	Cultivate	0.450	0.500	2.92	4.87			7.79	2.0	15.59	G
20	Oct	Hand Weeding	0.100	20.00	2.05				2.05	1.0	2.05	G
21	Oct	Apply Fert/Ground	0.450	0.500	5.03	4.87		25.29	35.20	1.0	35.20	G
22	Oct	Apply Insect./Ground	0.180	0.200	0.94	1.95		16.89	19.78	1.0	19.78	G
23	Nov	Apply Insect./Ground	0.180	0.200	0.94	1.95		5.95	8.84	1.0	8.84	G
24	Nov	Irrigate		0.800		7.80		3.33	11.13	2.0	22.26	G
25	Dec	Harvest, Load & Haul 400					1360.00		1360.00	1.0	1360.00	H
26	Dec	Process/Cooling 400 Ct		10.00		97.48		460.12	557.60	1.0	557.60	P
27	Dec	Disk Residue 400 Ct	0.225	0.250	3.22	2.44			5.66	1.0	5.66	L
		Pickup Use40 Mi/Acre	1.333		10.19				10.19		10.19	
		Operating Interest at 10.0					7.60		7.60		7.60	
=====												
TOTAL CASH OPERATING EXPENSES (includes all times over): 2310.17 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)	113.27
Growing (G)	261.50
Harvest (H)	1,360.00
Post Harvest (P)	557.60
Marketing (M)	0.00
Operating Overhead (O)	17.79
=====	
Total (T)	\$2,310.17

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

		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields			\$6.93	\$8.32	\$9.24	\$10.16	\$11.55	Break-even Price
- 25%	228.8	-245.66	71.39	282.76	494.12	811.17	8.00	
- 10%	274.5	-216.25	164.21	417.85	671.48	1,051.94	7.72	
Budgeted	305.0	-196.64	226.09	507.91	789.73	1,212.46	7.57	
+ 10%	335.5	-177.04	287.96	597.97	907.97	1,372.97	7.46	
Break-even Yield			610.93	193.56	132.99	101.29	74.62	

Table 20D. Resource and Cash Flow Requirements; Beets, 1999

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Double Crop
 CROP: Beets ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 305.0 Ct / Acre PREVIOUS CROP: Watermelons 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
JUN C			1.45		16.77	14.14				30.90
JUL C	1.0	5.0	1.75		8.96	17.06			3.00	29.02
AUG C			0.58		4.14	5.68	58.16			67.99
SEP C	1.0	18.0	4.15		1.88	40.42		53.96		96.26
OCT C	1.0	12.0	24.28	9.17	14.81	41.73	48.13			113.83
NOV C	1.0	4.0	1.00	3.33	0.94	9.75	5.95			19.97
DEC C	1.0	4.0	11.05	3.33	3.22	107.72		460.12	1360.00	1934.40
Pickup Use40 Mi/Acre					10.19					10.19
Operating Interest at 10.0									7.60	7.60
Water Assessment				**						
Total	5.0	43.0	44.26	15.83	60.92	236.50	112.24	514.08	1370.60	2310.17
%				0.69	2.64	10.24	4.86	22.25	59.33	100.00

TOTAL RESOURCE REQUIREMENTS (per Acre)

Total N 160.5
 Total P 184.0
 Total K 0.0
 Total Labor 44.3
 Total Water 43.0

TOTAL ENERGY REQUIREMENTS (per Acre)

Diesel Fuel 25.3 Gal
 Unleaded Gas 4.7 Gal
 All Direct Energy 4.1 M BTU

EQUIPMENT REQUIREMENTS (per Acre)

Bed Shaper, 4 Rw	0.22 Hr	Blade Scraper, 10'	0.11 Hr	Border Disk, 6' Disk	0.27 Hr
Crew Bus, 44 Passenger	0.10 Hr	Cultivator, Sweep, 4 Rw	0.90 Hr	Fert. Side Dress Unit,	0.30 Hr
Fertilizer Injector, 4 Row	0.45 Hr	Landplane 12'X 45'	0.45 Hr	Lister, 5 Bottom	0.22 Hr
Moldboard Plow, 4-16 2	0.45 Hr	Offset Disk, 13.5'	0.90 Hr	Offset Disk, 8'	0.02 Hr
Pickup Truck, 1/2 Ton	1.33 Hr	Planter, Planet Jr, 4 Row	0.22 Hr	Rowbuck, 10'	0.02 Hr
Saddle Tk Sprayer, 2 Tk 8	0.54 Hr	Tractor, 50 PTO HP,	0.86 Hr	Tractor, 70 PTO HP,	1.44 Hr
Tractor, 100 PTO HP,	0.99 Hr	Tractor, 150 PTO HP,	1.80 Hr		

MATERIALS REQUIREMENT (per Acre)

18-46-00, Dry	400.00 Lb	32-00-00, URAN 32, Lqd	25.00 Ga	Beet Seed	9.00 Lb
Boxes & Supplies	458.00 Ct	Chlorothalonil	2.00 Pt	PARATHION/METHYL,4E,5	4.50 Pt
Water, District	43.00 Al				

LABOR REQUIREMENT (per Acre)

Hand Weeders	20.00 Hr	Irrigators	8.35 Hr	Other	0.25 Hr
Packer-Loader	10.00 Hr	Tractor	5.66 Hr		

*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 20E. Schedule of Operations; Beets, 1999

COUNTY: Maricopa FARM: Maricopa Vegetable WATER SOURCE: Salt River Project TILLAGE: Double Crop
 CROP: Beets ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Salt River Project YIELD: 305.0 Ct / Acre PREVIOUS CROP: Watermelons 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	Jun	1.0	Plow	150	Moldboard Plow, 4-16 2	2.00						Tractor
2	Jun	3.0	Disk	150	Offset Disk, 13.5'	4.00						Tractor
3	Jun	2.0	Landplane	150	Landplane 12'X 45'	4.00						Tractor
4	Jun	1.0	Make Borders	70	Border Disk, 6' Disk	10.00						Tractor
5	Jun	1.0	Block Borders	100	Blade Scraper, 10'	10.00						Tractor
6	Jul	1.0	Preirrigate			1.25	Water, District	5.00	Al	0.00	AF	Irrigators
7	Jul	1.0	Knock Borders	70	Border Disk, 6' Disk	5.00						Tractor
8	Jul	1.0	List	100	Lister, 5 Bottom	4.00						Tractor
9	Jul	1.0	Soil Fertility		CST Soil Analysis (Surface)						3.00	Ac
10	Aug	1.0	Apply Fert/Ground	50	Fert. Side Dress Unit, 4Row	3.00	18-46-00, Dry	400.00	Lb	275.00	Tn	Tractor
11	Aug	1.0	Shape Beds	100	Bed Shaper, 4 Rw	4.00						Tractor
12	Sep	1.0	Plant	70	Planter, Planet Jr, 4 Row	4.00	Beet Seed	9.00	Lb	5.67	Lb	Tractor
13	Sep	1.0	Disk Ends	70	Offset Disk, 8'	40.00						Tractor
14	Sep	1.0	Buck Rows	50	Rowbuck, 10'	40.00						Tractor
15	Sep	1.0	Make Ditches	70	Blade Scraper, 10'	40.00						Tractor
16	Sep	1.0	Irrigate			0.28	Water, District	18.00	Al	0.00	AF	Irrigators
17	Oct	1.0	Apply Insect./Ground	50	Saddle Tk Sprayer, 2 Tk 8	5.00		1.50	Pt	30.00	Ga	Tractor
18	Oct	1.0	Irrigate			0.42	Water, District	12.00	Al	9.17	AF	Irrigators
19	Oct	2.0	Cultivate	70	Cultivator, Sweep, 4 Rw	2.00						Tractor
20	Oct	1.0	Hand Weeding		Crew Bus, 44 Passenger	0.05						Hand
21	Oct	1.0	Apply Fert/Ground	100	Fertilizer Injector, 4 Row	2.00	32-00-00, URAN 32,	25.00	Ga	173.00	Tn	Tractor
22	Oct	1.0	Apply Insect./Ground	50	Saddle Tk Sprayer, 2 Tk 8	5.00	Chlorothalonil	1.50	Pt	30.00	Ga	Tractor
								2.00	Pt	41.37	Ga	
23	Nov	1.0	Apply Insect./Ground	50	Saddle Tk Sprayer, 2 Tk 8	5.00		1.50	Pt	30.00	Ga	Tractor
24	Nov	2.0	Irrigate			1.25	Water, District	4.00	Al	10.00	AF	Irrigators
25	Dec	1.0	Harvest, Load & Haul		CST Harvest Beets						3.40	Ct
26	Dec	1.0	Process/Cooling			0.10	Boxes & Supplies	458.00	Ct	0.95	Ct	Packer-Loa
27	Dec	1.0	Disk Residue	150	Offset Disk, 13.5'	4.00						Tractor
			Pickup use 40 Mi/Ac		Pickup Truck, 1/2 Ton	0.75						

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