

Table 3A. Income and Cash Operating Summary; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Lettuce	Crtm	685.00	\$6.48	\$4,438.80	\$4,438.80	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)							
Paid Labor (including benefits)					85.12	_____	
Tractor/Self Propelled					32.20	_____	
Irrigation					29.74	_____	
Other/ Contract					23.19	_____	
Chemicals and Custom Applications					591.85	_____	
Fertilizer					183.85	_____	
Insecticide					289.33	_____	
Herbicide					68.77	_____	
Other Chemicals					49.90	_____	
Farm Machinery and Vehicles					70.78	_____	
Diesel Fuel					16.71	_____	
Gasoline					12.87	_____	
Repairs and Maintenance					41.21	_____	
Water Assessment (See Note Below) **						_____	
Other Purchased Inputs &					278.46	_____	
Seed/Transplants					101.76	_____	
Other Services and Rentals					176.70	_____	
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					1026.22	_____	
CASH HARVEST AND POST HARVEST EXPENSES							
Custom Harvest/Post Harvest					1644.00	_____	
Other Materials					638.97	_____	
TOTAL HARVEST AND POST HARVEST EXPENSE					2282.97	_____	
OPERATING OVERHEAD PICKUP USE					12.60	_____	
OPERATING INTEREST AT10.0%					20.71	_____	
TOTAL CASH OPERATING EXPENSES					\$3,342.50	_____	
RETURNS OVER CASH OPERATING EXPENSES					\$1,096.30	_____	

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

** A water assessment charge of \$31.00 per Acre is included as an ownership cost in Table B.

Table 3B. Allocations of Ownership Costs; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$6.48 / Ct	\$4,438.80		\$4,438.80	
TOTAL OPERATING EXPENSES	\$3,342.50		\$3,342.50	
RETURN OVER CASH OPERATING EXPENSES		\$1,096.30		\$1,096.30
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	8.50		8.50	
General and Office Overhead (5.0% of Total Operating Exp.)	167.12		167.12	
General Farm Maintenance (3.0% of Total Operating Exp.)	100.27		100.27	

Total Cash Overhead Expenses	275.90		275.90	
Total Cash Operating and Overhead Cost	3,618.39		3,618.39	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$820.41		\$820.41
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			38.64	
Interest on Equity, Machinery and Vehicles			13.24	

Total Capital Allocations			51.88	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$820.41		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$768.53
Land Cost / Rent or Lease	435.00		435.00	
Water Assessment	31.00		31.00	

Total Land Costs	466.00		466.00	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$354.41		
RETURNS TO MANAGEMENT AND RISK ----->				\$302.53
Management Services (8% of Total Operation Expenses)			267.40	
TOTAL OWNERSHIP COST	741.90		1,061.17	
TOTAL COST	\$4,084.39		\$4,403.67	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$354.41		
RETURNS TO RISK (PROFITS) ----->				\$35.13
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$4.88		\$4.88
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$1.08		\$1.55
BREAK-EVEN PRICE TO COVER TOTAL COST		\$5.96		\$6.43

Table 3C. Variable Operating Costs; Fall Lettuce, 1998

COUNTY:Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

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	Jul	Rip	0.450	0.500	6.00	3.90			9.90	1.3	12.87	L
2	Jul	Disk	0.150	0.167	2.40	1.30			3.71	2.0	7.41	L
3	Jul	Laser Level	0.450	0.500	5.82	3.90			9.72	2.0	19.45	L
4	Jul	Make Borders	0.023	0.025	0.13	0.19			0.32	1.0	0.32	G
5	Jul	Preirrigate		0.667		4.33			4.33	1.0	4.33	G
6	Jul	Soil Fertility					3.00		3.00	1.0	3.00	G
7	Jul	Dust Control	0.009	0.010	0.15	0.14			0.30	160.0	47.83	G
8	Aug	Apply Fert/Ground	0.075	0.083	0.46	0.65		75.72	76.83	1.0	76.83	G
9	Aug	Apply Herbicide/Ground	0.150	0.167	2.51	1.30		68.77	72.58	1.0	72.58	G
10	Sep	List	0.180	0.200	1.96	1.56			3.52	1.0	3.52	L
11	Sep	Shape Beds	0.180	0.200	2.13	1.56		78.40	82.09	1.0	82.09	L
12	Sep	Plant	0.450	0.500	7.20	3.90		101.76	112.86	1.0	112.86	L
13	Sep	Set Sprinklers	0.158	0.350	0.88	2.50			3.38	1.0	3.38	G
14	Sep	Apply Insecticide/Air					4.75	27.92	32.67	1.0	32.67	G
15	Sep	Irrigate/Sec Sys		0.091		0.59			0.59	10.0	5.91	G
16	Sep	Remove Sprinklers	0.158	0.350	0.88	2.50			3.38	1.0	3.38	G
17	Sep	Make Ditches	0.022	0.025	0.31	0.19			0.51	1.0	0.51	G
18	Sep	Irrigate/Run Fertilizer		0.599		3.89		8.01	11.90	1.0	11.90	G
19	Sep	Field Scouting					6.00		6.00	3.0	18.00	G
20	Sep	Apply Insect./Ground	0.015	0.017	0.09	0.13	4.75	29.81	34.78	1.0	34.78	G
21	Oct	Apply Insect./Ground	0.015	0.017	0.09	0.13		54.75	54.97	1.0	54.97	G
22	Oct	Irrigate/Run Fertilizer		0.200		1.30		16.02	17.32	4.0	69.28	G
23	Oct	Thinning					75.00		75.00	1.0	75.00	G
24	Oct	Cultivate	0.225	0.250	2.77	1.95		16.02	20.74	1.0	20.74	G
25	Oct	Apply Fungicide/Ground	0.015	0.017	0.09	0.13		49.18	49.40	1.0	49.40	G
26	Oct	Apply Insect./Ground	0.015	0.017	0.09	0.13		17.73	17.94	1.0	17.94	G
27	Nov	Bird Control					5.70		5.70	1.0	5.70	G
28	Nov	Apply Insecticide/Air					4.75	29.81	34.56	1.0	34.56	G
29	Nov	Make Ditches	0.011	0.013	0.16	0.10			0.26	2.0	0.51	G
30	Nov	Irrigate/Run Fertilizer		0.200		1.30		20.02	21.32	1.0	21.32	G
31	Nov	Hand Weeding					75.00		75.00	1.0	75.00	G
32	Nov	Apply Insect./Ground	0.015	0.017	0.09	0.13		18.68	18.90	2.0	37.81	G
33	Dec	Knock Borders	0.022	0.025	0.12	0.19			0.31	1.0	0.31	G
34	Dec	Knock Ditches	0.022	0.025	0.31	0.19			0.51	1.0	0.51	G
35	Dec	Harvest, Load & Haul 685					1644.00	638.97	2282.97	1.0	2282.97	H
36	Jan	Disk Residue 685 Ct	0.150	0.167	2.40	1.30			3.71	1.0	3.71	L
		Pickup Use50 Mi/Acre	1.667		12.60						12.60	
		Operating Interest at 10.0					20.71				20.71	
TOTAL CASH OPERATING EXPENSES (includes all times over):					87.30	81.21	1855.66	1318.33			3342.50	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 \$31.00 per Acre is included as an ownership cost in Table B.

Table 3C. Variable Operating Costs; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)							
		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%		
Land Preparation (L)	244.83								
Growing (G)	781.40	Yields	\$4.86	\$5.83	\$6.48	\$7.13	\$8.10		
Harvest (H)	2,282.97						Break-even Price		
Post Harvest (P)	0.00	- 25%	513.8	-268.40	230.97	563.88	896.79	1,396.16	5.38
Marketing (M)	0.00	- 10%	616.5	-111.48	487.76	887.25	1,286.75	1,885.98	5.04
Operating Overhead (O)	33.31	Budgeted	685.0	-6.86	658.96	1,102.84	1,546.72	2,212.54	4.87
	=====	+ 10%	753.5	97.75	830.15	1,318.42	1,806.69	2,539.09	4.73
Total (T)	\$3,342.51	+ 25%	856.3	254.67	1,086.95	1,641.80	2,196.65	3,028.92	4.56
		Break-even Yield		689.49	421.33	334.58	277.45	220.88	

ARIZONA COOPERATIVE EXTENSION
 Department of Ag and Resource Economics
 University of Arizona F 13 / 71

Table 3D. Resource and Cash Flow Requirements; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
JUL C	1.0	12.0	2.28		14.16	13.78			3.00	30.94
AUG C			1.05		8.76	5.99	144.50			159.25
SEP C	5.5	7.0	2.43		20.00	24.27	155.69	50.88	15.50	266.34
OCT C	6.5	10.0	2.75		22.73	27.18	150.96	50.88	81.00	315.94
NOV C	2.0	6.0	0.86		3.12	4.93	92.55		76.45	177.05
DEC C	2.0	6.0	0.75		0.81	2.07	50.72	319.48	835.80	1208.88
JAN N			0.19		2.77	1.69		319.48	823.20	1147.14
Pickup Use50 Mi/Acre					12.60					12.60
Operating Interest at 10.0									20.71	20.71
Water Assessment				**						
Total	17.0	41.0	10.30		87.30	81.21	577.61	740.72	1855.66	3342.50
%					2.61	2.43	17.28	22.16	55.52	100.00
TOTAL RESOURCE REQUIREMENTS (per Acre)			TOTAL ENERGY REQUIREMENTS (per Acre)							
Total N		263.3		Diesel Fuel	21.6	Gal				
Total P		202.5		Unleaded Gas	15.1	Gal				
Total K		0.0		All Direct Energy	4.9	M BTU				
Total Labor		10.3								
Total Water		41.0								
EQUIPMENT REQUIREMENTS (per Acre)										
Bed Shaper, 6 Rw		0.18	Hr	Border Disk, 6' Disk	0.04	Hr	Drag Scraper, 14'		0.90	Hr
Fertilizer Broadcaster,		0.08	Hr	Fertilizer Injector, 4 Row	0.22	Hr	High Clearance Sprayer,		0.09	Hr
Laser, Complete System		0.90	Hr	Lister, 5 Bottom	0.18	Hr	Motor Grader, 12'		0.07	Hr
Offset Disk, 18'		0.60	Hr	Pickup Truck, 1/2 Ton	1.67	Hr	Planter, Stanhay, 4 Row		0.45	Hr
Saddle Tk Sprayer, 2 Tk 8		0.33	Hr	Section Harrow, 3 Section	0.15	Hr	Sled Cultivator, 4Rw		0.22	Hr
Sprinkler Trailer		0.32	Hr	Tractor, 60 PTO HP	0.41	Hr	Tractor, 70 PTO HP,		0.02	Hr
Tractor, 80 PTO HP,		0.22	Hr	Tractor, 100 PTO HP	0.96	Hr	Tractor, 125 PTO HP		0.90	Hr
Tractor, 150 PTO HP,		1.03	Hr	Truck, 5 Ton w/1000 Gal	1.44	Hr	V-Ripper, 7 Shnk with		0.58	Hr
MATERIALS REQUIREMENT (per Acre)										
00-45-00, Treble Super.	450.00	Lb		20-00-00, Amm. Nitrate,	135.00	Ga	Benefin		2.00	Pt
Cypermethrin	12.00	Oz		Head Lettuce Sd	160.00	Th	Imidacloprid		16.00	Oz
Lettuce Cartons	685.00	Ct		Methomyl	10.00	Pt	Permethrin		2.00	Pt
Permethrin	2.00	Oz		Pronamide	2.00	Lb	Spinosad		12.00	Oz
Spreader-activator	6.40	Oz		Thiodicarb	2.00	Pt	Vinclozolin		2.00	Lb
Water, District	41.00	Al								
LABOR REQUIREMENT (per Acre)										
Irrigators		4.58	Hr	Tractor	4.13	Hr	Truck Driver		1.60	Hr

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

** A water assessment charge of \$31.00 per Acre is included as an ownership cost in Table B.

Table 3E. Schedule of Operations; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

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	Jul	1.3	Rip	150	V-Ripper, 7 Shnk with	2.00						Tractor	
2	Jul	2.0	Disk	150	Offset Disk, 18'	6.00						Tractor	
3	Jul	2.0	Laser Level	125	Drag Scraper, 14' Laser, Complete System	2.00						Tractor	
4	Jul	1.0	Make Borders	60	Border Disk, 6' Disk	40.00						Tractor	
5	Jul	1.0	Preirrigate	1.50	Water, District	12.00	Al	0.00	AF			Irrigators	
6	Jul	1.0	Soil Fertility		CST Soil Analysis (Surface)						3.00	Ac	
7	Jul	160.0	Dust Control		Truck, 5 Ton w/1000 Gal Tank	100.00						Truck	
8	Aug	1.0	Apply Fert/Ground	60	Fertilizer Broadcaster,	12.00	00-45-00, Treble	450.00	Lb	317.50	Tn	Tractor	
9	Aug	1.0	Apply Herbicide/Ground	100	Saddle Tk Sprayer, 2 Tk 8 Offset Disk, 18' Section Harrow, 3 Section	6.00	Benefin Pronamide	2.00	Pt	9.08	Ga	Tractor	
								2.00	Lb	23.36	Lb		
10	Sep	1.0	List	100	Lister, 5 Bottom	5.00						Tractor	
11	Sep	1.0	Shape Beds	100	Bed Shaper, 6 Rw Saddle Tk Sprayer, 2 Tk 8 Row	5.00	Imidacloprid	16.00	Oz	591.67	Ga	Tractor	
12	Sep	1.0	Plant	100	Planter, Stanhay, 4 Row	2.00	Head Lettuce Sd	160.00	Th	0.60	Th	Tractor	
13	Sep	1.0	Set Sprinklers	60	Sprinkler Trailer	5.70						Tractor	
14	Sep	1.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Methomyl Permethrin	4.00	Pt	49.05	Ga	4.75	Ac
								2.00	Oz	115.83	Ga		
15	Sep	10.0	Irrigate/Sec Sys	11.00	Water, District	1.10	Al	0.00	AF			Irrigators	
16	Sep	1.0	Remove Sprinklers	60	Sprinkler Trailer	5.70						Tractor	
17	Sep	1.0	Make Ditches		Motor Grader, 12'	40.00						Irrigators	
18	Sep	1.0	Irrigate/Run Fertilizer	1.70	Water, District	3.00	Al	0.00	AF			Irrigators	
					20-00-00, Amm. Nitrate,	10.00	Ga	155.00	Tn				
19	Sep	3.0	Field Scouting		CST Scout For Insects						6.00	Ac	
20	Sep	1.0	Apply Insect./Ground	60.00	CST Air Spray, 5 Gal Mix	6.00	Spinosad	6.00	Oz	600.00	Ga	4.75	Ac
21	Oct	1.0	Apply Insect./Ground	60.00	High Clearance Sprayer, 18'	60.00	Methomyl Permethrin	4.00	Pt	49.05	Ga		Tractor
								2.00	Pt	108.50	Ga		
22	Oct	4.0	Irrigate/Run Fertilizer	5.00	Water, District	3.00	Al	0.00	AF			Irrigators	
					20-00-00, Amm. Nitrate,	20.00	Ga	155.00	Tn				
23	Oct	1.0	Thinning		CST Thinning						75.00	Ac	
24	Oct	1.0	Cultivate	4.00	80 Sled Cultivator, 4Rw Fertilizer Injector, 4 Row	4.00	20-00-00, Amm. Nitrate,	20.00	Ga	155.00	Tn		Tractor
25	Oct	1.0	Apply Fungicide/Ground	60.00	High Clearance Sprayer, 18'	60.00	Vinclozolin	2.00	Lb	23.20	Lb		Tractor
26	Oct	1.0	Apply Insect./Ground	60.00	High Clearance Sprayer, 18'	60.00	Thiodicarb Cypermethrin	2.00	Pt	49.04	Ga		Tractor
								2.00	Oz	285.64	Ga		
27	Nov	1.0	Bird Control		CST Bird Control						5.70	Ac	
28	Nov	1.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Spinosad	6.00	Oz	600.00	Ga	4.75	Ac

Table 3E. Schedule of Operations; Fall Lettuce, 1998

COUNTY: Yuma FARM: Yuma Vegetables 98 WATER SOURCE: Yuma County Water TILLAGE: Double Crop
 CROP: Lettuce, Iceberg ACRES: 1.0 IRRIGATION SYSTEM: Flood Furrow SOIL: Sandy-Loam
 AREA: Yuma Valley North YIELD: 685.0 Ct / Acre PREVIOUS CROP: Wheat, Winter DATE: 11/27/98

First No. Month Times	Operation	Equipment/ Custom Oper HP Self-Prop./ Implement	Job Rate Acres/Hr	Material Use and Cost				Service Cost \$/ Unit	Labor Type
				Name	Appl. Rate	\$/ Unit			
29 Nov	2.0 Make Ditches	Motor Grader, 12'	80.00						Tractor
30 Nov	1.0 Irrigate/Run Fertilizer		5.00	Water, District	3.00	AI	0.00	AF	Irrigators
				20-00-00, Amm. Nitrate,	25.00	Ga	155.00	Tn	
31 Nov	1.0 Hand Weeding	CST Hand Weeding							75.00 Ac
32 Nov	2.0 Apply Insect./Ground	High Clearance Sprayer, 18	60.00	Methomyl	1.00	Pt	49.05	Ga	Tractor
				Cypermethrin	5.00	Oz	285.64	Ga	
				Spreader-activator	3.20	Oz	13.50	Ga	
33 Dec	1.0 Knock Borders	70 Border Disk, 6' Disk	40.00						Tractor
34 Dec	1.0 Knock Ditches	Motor Grader, 12'	40.00						Tractor
35 Dec	1.0 Harvest, Load & Haul	CST Harvest-Load-Haul		Lettuce Cartons	685.00	Ct	0.88	Ct	2.40 Ct
36 Jan	1.0 Disk Residue	150 Offset Disk, 18'	6.00						Tractor
	Pickup use 50 Mi/Ac	Pickup Truck, 1/2 Ton	0.60						

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

ARIZONA COOPERATIVE EXTENSION
 Department of Ag and Resource Economics
 University of Arizona F 13 / 71