

**Table 4A. Income and Cash Operating Summary; Alfalfa, Annual, 1998**

COUNTY: Yuma                      FARM: Yuma County 98                      WATER SOURCE: Yuma County Water                      TILLAGE: Conventional  
 CROP: Alfalfa Hay                      ACRES: 1.0                      IRRIGATION SYSTEM: Flood Basin                      SOIL: Sandy-Loam  
 AREA: Yuma Valley North                      YIELD: 4.5 Tn / Acre                      PREVIOUS CROP: Lettuce, Leaf                      DATE: 1/25/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME      Alfalfa	Ton	4.50	\$96.70	\$435.15	\$435.15	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					40.52	_____
Tractor/Self Propelled				18.22		_____
Irrigation				22.30		_____
Chemicals and Custom Applications					93.55	_____
Fertilizer				60.21		_____
Insecticide				22.76		_____
Herbicide				10.58		_____
Farm Machinery and Vehicles					20.92	_____
Diesel Fuel				8.90		_____
Repairs and Maintenance				12.02		_____
Irrigation Water (excluding labor)					0.00	_____
Water Assessment (See Note Below) **						_____
Other Purchased Inputs & Seed/Transplants				66.25	66.25	_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					221.24	_____
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					15.38	_____
Tractor/Self Propelled				3.00		_____
Other/Contract				12.38		_____
Farm Machinery and Vehicles					60.40	_____
Diesel Fuel				6.99		_____
Repairs and Maintenance				53.41		_____
Other Materials					15.32	_____
TOTAL HARVEST AND POST HARVEST EXPENSE					91.10	_____
OPERATING OVERHEAD      PICKUP USE					10.08	_____
OPERATING INTEREST AT 10.0%					14.49	_____
TOTAL CASH OPERATING EXPENSES					\$336.91	=====
RETURNS OVER CASH OPERATING EXPENSES					\$98.24	_____

Notes: The above figures do not include ownership costs, see table B for detailed cost allocation.  
 \*\* A water assessment charge of \$62.00 per Acre is included as an ownership cost in Table B.

**Table 4B. Allocations of Ownership Costs; Alfalfa, Annual, 1998**

COUNTY: Yuma FARM: Yuma County 98 WATER SOURCE: Yuma County Water TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Yuma Valley North YIELD: 4.5 Tn / Acre PREVIOUS CROP: Lettuce, Leaf DATE: 1/25/99

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$96.70 / Tn	\$435.15		\$435.15	
TOTAL OPERATING EXPENSES	\$336.91		\$336.91	
RETURN OVER CASH OPERATING EXPENSES		\$98.24		\$98.24
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	8.51		8.51	
General and Office Overhead (5.0% of Total Operating Exp.)	16.85		16.85	
General Farm Maintenance (3.0% of Total Operating Exp.)	10.11		10.11	
Total Cash Overhead Expenses	35.47		35.47	
Total Cash Operating and Overhead Cost	372.38		372.38	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$62.77		\$62.77
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			54.69	
Interest on Equity, Machinery and Vehicles			10.70	
Total Capital Allocations			65.40	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$62.77		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$2.62)
Land Cost / Ownership (100% Equity)				
Property Taxes (\$1,314. X 16.0% X 0.132)	27.79		27.79	
Opportunity Interest on Land (100% X 6.0 X \$1,314.)			78.84	
Water Assessment	62.00		62.00	
Total Land Costs	89.79		168.63	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$27.02)		
RETURNS TO MANAGEMENT AND RISK ----->				(\$171.25)
Management Services (8% of Total Operation Expenses)			26.95	
TOTAL OWNERSHIP COST	125.26		296.44	
TOTAL COST	\$462.17		\$633.35	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		(\$27.02)		
RETURNS TO RISK (PROFITS) ----->				(\$198.20)
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$74.87		\$74.87
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$27.83		\$65.88
BREAK-EVEN PRICE TO COVER TOTAL COST		\$102.70		\$140.75

**Table 4C. Variable Operating Costs; Alfalfa, Annual, 1998**

COUNTY: Yuma FARM: Yuma County 98 WATER SOURCE: Yuma County Water TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Yuma Valley North YIELD: 4.5 Tn / Acre PREVIOUS CROP: Lettuce, Leaf DATE: 1/25/99

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	Jan	Chisel	0.450	0.500	3.97	3.90			7.86	1.0	7.86	L
2	Jan	Disk	0.200	0.222	1.97	1.73			3.70	2.0	7.40	L
3	Jan	Apply Fert/Ground	0.150	0.167	1.13	1.30	60.21		62.64	1.0	62.64	G
4	Jan	Laser Level	0.300	0.333	3.33	2.60			5.93	1.0	5.93	L
5	Jan	Make Borders	0.150	0.167	1.10	1.30			2.40	1.0	2.40	G
6	Jan	Rerun Borders	0.022	0.025	0.16	0.19			0.35	1.0	0.35	G
7	Jan	Mulch	0.225	0.250	2.11	1.95			4.06	1.0	4.06	L
8	Jan	Apply Herb. & Incorporate	0.225	0.250	3.46	1.95	10.58		15.99	1.0	15.99	G
9	Jan	Plant	0.180	0.200	1.73	1.56	66.25		69.54	1.0	69.54	L
10	Feb	Irrigate		0.286		1.86			1.86	12.0	22.30	G
11	Apr	Swathing	0.150	0.167	2.23	1.09			3.31	5.0	16.57	H
12	Apr	Raking	0.069	0.077	0.64	0.60			1.24	5.0	6.20	H
13	Apr	Baling	0.129	0.143	3.61	0.93	3.06		7.60	5.0	38.01	H
14	Apr	Roadsiding	0.064	0.071	5.60	0.46			6.07	5.0	30.33	H
15	Apr	Apply Insecticide/Air					4.23	4.17	8.40	1.0	8.40	G
16	Sep	Apply Insecticide/Air					4.23	10.13	14.36	1.0	14.36	G
		Pickup Use40 Mi/Acre	1.333		10.08						10.08	
		Operating Interest at 10.0					14.49				14.49	
TOTAL CASH OPERATING EXPENSES (includes all times over):												
=====												
336.91 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 \$62.00 per Acre is included as an ownership cost in Table B.

**OPERATING COST SUMMARY BY CLASS**

Land Preparation (L)	94.79
Growing (G)	126.45
Harvest (H)	91.10
Post Harvest (P)	0.00
Marketing (M)	0.00
Operating Overhead (O)	24.57
Total (T)	=====
	\$336.91

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

	Prices	Budgeted					Break-even Price
		- 25%	- 10%	Budgeted	+ 10%	+ 25%	
Yields		\$72.52	\$87.03	\$96.70	\$106.37	\$120.88	92.00
- 25%	3.4	-65.73	-16.77	15.86	48.50	97.45	92.00
- 10%	4.1	-30.44	28.31	67.47	106.63	165.38	80.04
Budgeted	4.5	-6.91	58.36	101.88	145.39	210.66	74.06
+ 10%	4.9	16.61	88.41	136.28	184.15	255.95	69.17
+ 25%	5.6	51.90	133.49	187.89	242.28	323.87	63.30
Break-even Yield		4.63	3.63	3.17	2.81	2.41	

**Table 4D. Resource and Cash Flow Requirements; Alfalfa, Annual, 1998**

COUNTY: Yuma FARM: Yuma County 98 WATER SOURCE: Yuma County Water TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Yuma Valley North YIELD: 4.5 Tn / Acre PREVIOUS CROP: Lettuce, Leaf DATE: 1/25/99

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
JAN C			2.34		20.92	18.22	70.79	66.25		176.18
FEB C	2.0	8.0	0.57			3.72				3.72
MAR C	1.0	4.0	0.29			1.86				1.86
APR C	1.0	4.0	0.74			4.94	4.17	3.06	4.23	28.48
MAY C	2.0	8.0	1.03		12.08	6.79		3.06		21.94
JUN C	2.0	8.0	1.03		12.08	6.79		3.06		21.94
JUL C	2.0	8.0	1.03		12.08	6.79		3.06		21.94
AUG C	2.0	8.0	1.03		12.08	6.79		3.06		21.94
SEP C							10.13		4.23	14.36
Pickup Use40 Mi/Acre					10.08					10.08
Operating Interest at 10.0									14.49	14.49
Water Assessment				**						
<b>Total</b>	<b>12.0</b>	<b>48.0</b>	<b>8.06</b>		<b>91.40</b>	<b>55.91</b>	<b>85.09</b>	<b>81.57</b>	<b>22.95</b>	<b>336.91</b>
<b>%</b>					<b>27.13</b>	<b>16.59</b>	<b>25.26</b>	<b>24.21</b>	<b>6.81</b>	<b>100.00</b>

TOTAL RESOURCE REQUIREMENTS ( per Acre)

Total N 44.0  
 Total P 208.0  
 Total K 0.0  
 Total Labor 8.1  
 Total Water 48.0

TOTAL ENERGY REQUIREMENTS ( per Acre)

Diesel Fuel 20.5 Gal  
 Unleaded Gas 4.0 Gal  
 All Direct Energy 3.4 M BTU

EQUIPMENT REQUIREMENTS ( per Acre)

Bale Wagon, SP PRC	0.32 Hr	Baler, 3 wire w/motor	0.64 Hr	Blade Scraper, 10'	0.15 Hr
Border Disk, 6' Disk	0.02 Hr	Drag Scraper, 10'	0.30 Hr	Fertilizer Broadcaster,	0.15 Hr
Laser, Complete System	0.30 Hr	Offset Disk, 12'	0.63 Hr	Pickup Truck, 1/2 Ton	1.33 Hr
Rake, 9.5' LH AND RH	0.34 Hr	Saddle Tk Sprayer, 2 Tk 8	0.22 Hr	Seeder, Brillion	0.18 Hr
Spring Tooth Renovator,	0.22 Hr	Tractor, 70 PTO HP,	0.99 Hr	Tractor, 80 PTO HP,	0.18 Hr
Tractor, 100 PTO HP,	1.40 Hr	Tractor, 150 PTO HP,	0.52 Hr	V-Ripper, 7 Shnk	0.45 Hr
Windrower, 14.0', HS, SC	0.75 Hr				

MATERIALS REQUIREMENT ( per Acre)

11-52-00, Dry	400.00 Lb	Alfalfa Sd, Cert	25.00 Lb	Baling Twine (6500')	2.20 TF
Chlorpyrifos	1.50 Pt	Malathion	1.50 Pt	Trifluralin	3.20 Pt
Water, District	48.00 Al				

LABOR REQUIREMENT ( per Acre)

Harvest	1.90 Hr	Irrigators	3.43 Hr	Tractor	2.72 Hr
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\*NOTE: P = Previous Year C = Current Year N = Next Year

\*\* A water assessment charge of \$62.00 per Acre is included as an ownership cost in Table B.

**Table 4E. Schedule of Operations; Alfalfa, Annual, 1998**

COUNTY: Yuma FARM: Yuma County 98 WATER SOURCE: Yuma County Water TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Yuma Valley North YIELD: 4.5 Tn / Acre PREVIOUS CROP: Lettuce, Leaf DATE: 1/25/99

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	Jan	1.0	Chisel	100	V-Ripper, 7 Shnk	2.00					Tractor
2	Jan	2.0	Disk	100	Offset Disk, 12'	4.50					Tractor
3	Jan	1.0	Apply Fert/Ground	100	Fertilizer Broadcaster,	6.00	11-52-00, Dry	400.00	Lb 284.00	Tn	Tractor
4	Jan	1.0	Laser Level	150	Drag Scraper, 10' Laser, Complete System	3.00					Tractor
5	Jan	1.0	Make Borders	100	Blade Scraper, 10'	6.00					Tractor
6	Jan	1.0	Rerun Borders	100	Border Disk, 6' Disk	40.00					Tractor
7	Jan	1.0	Mulch	100	Spring Tooth Renovator,	4.00					Tractor
8	Jan	1.0	Apply Herb. &	150	Saddle Tk Sprayer, 2 Tk 8 Offset Disk, 12'	4.00	Trifluralin	3.20	Pt 24.95	Ga	Tractor
9	Jan	1.0	Plant	80	Seeder, Brillion	5.00	Alfalfa Sd, Cert	25.00	Lb 250.00	CW	Tractor
10	Feb	12.0	Irrigate			3.50	Water, District	4.00	Al 0.00	AF	Irrigators
11	Apr	5.0	Swathing		Windrower, 14.0', HS, SC	6.00					Harvest
12	Apr	5.0	Raking	70	Rake, 9.5' LH AND RH	13.00					Tractor
13	Apr	5.0	Baling	70	Baler, 3 wire w/motor	7.00	Baling Twine (6500')	0.44	TF 6.57	TF	Harvest
14	Apr	5.0	Roadsiding		Bale Wagon, SP PRC	14.00					Harvest
15	Apr	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mix		Malathion	1.50	Pt 21.00	Ga	4.23 Ac
16	Sep	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mix		Chlorpyrifos	1.50	Pt 50.95	Ga	4.23 Ac
			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.

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