

**Table 4A. Income and Cash Operating Summary; Alfalfa Hay w/Sheep, 1998**

COUNTY: Mohave      FARM: Mohave County 98      WATER SOURCE: Colorado River Pump,      TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze      ACRES: 1.0      IRRIGATION SYSTEM: Flood Basin      SOIL: Sandy-Loam  
 AREA: Mohave Valley      YIELD: 7.5 Tn / Acre      PREVIOUS CROP: Cotton, Upland      DATE: 2/3/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME	Alfalfa	Ton	7.50	\$96.70	\$725.25	\$743.25
	Grazing	Head Days	200.00	\$0.09	\$18.00	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
	Paid Labor (including benefits)				21.56	
	Tractor/Self Propelled			2.20		
	Irrigation			19.35		
	Chemicals and Custom Applications				162.42	
	Fertilizer			76.22		
	Insecticide			38.83		
	Herbicide			47.38		
	Farm Machinery and Vehicles				1.90	
	Diesel Fuel			0.97		
	Repairs and Maintenance			0.93		
	Irrigation Water (excluding labor)				19.80	
	Pump Energy - Electric			17.67		
	Repairs and Maintenance			2.13		
	Other Purchased Inputs & Seed/Transplants				11.81	
				11.81		
	TOTAL CASH LAND PREPARATION AND GROWING EXPENSES				217.49	
CASH HARVEST AND POST HARVEST EXPENSES						
	Paid Labor (including benefits)				32.27	
	Tractor/Self Propelled			5.40		
	Other/Contract			26.88		
	Farm Machinery and Vehicles				118.04	
	Diesel Fuel			17.27		
	Repairs and Maintenance			100.77		
	Other Materials				23.66	
	TOTAL HARVEST AND POST HARVEST EXPENSE				173.98	
OPERATING OVERHEAD	PICKUP USE				15.12	
OPERATING INTEREST AT 10.0%					49.66	
	TOTAL CASH OPERATING EXPENSES				\$456.25	
	RETURNS OVER CASH OPERATING EXPENSES				\$287.00	

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

**Table 4B. Allocations of Ownership Costs; Alfalfa Hay w/Sheep, 1998**

COUNTY: Mohave FARM: Mohave County 98 WATER SOURCE: Colorado River Pump, TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/3/99

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	\$743.25		\$743.25	
TOTAL OPERATING EXPENSES	\$456.25		\$456.25	
RETURN OVER CASH OPERATING EXPENSES		\$287.00		\$287.00
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	11.50		11.50	
Wells and Irrigation System	0.96		0.96	
General and Office Overhead (5.0% of Total Operating Exp.)	22.81		22.81	
General Farm Maintenance (3.0% of Total Operating Exp.)	13.69		13.69	
Total Cash Overhead Expenses	48.96		48.96	
Total Cash Operating and Overhead Cost	505.21		505.21	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$238.04		\$238.04
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			79.15	
Wells and Irrigation System			5.88	
Interest on Equity, Machinery and Vehicles			6.47	
Wells and Irrigation System			2.26	
Stand Establishment (3 year crop)	94.59		94.59	
Total Capital Allocations	94.59		188.35	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$143.45		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$49.69
Land Cost / Ownership (100% Equity)				
Property Taxes (\$510.00 X 16.0% X 0.102)	8.37		8.37	
Opportunity Interest on Land (100% X 6.0 X \$510.00)			30.60	
Total Land Costs	8.37		38.97	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$135.08		
RETURNS TO MANAGEMENT AND RISK ----->				\$10.72
Management Services (8% of Total Operation Expenses)			36.50	
TOTAL OWNERSHIP COST	151.93		312.79	
TOTAL COST	\$608.17		\$769.03	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$135.08		
RETURNS TO RISK (PROFITS) ----->				(\$25.78)
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$58.43		\$58.43
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$20.26		\$41.71
BREAK-EVEN PRICE TO COVER TOTAL COST		\$78.69		\$100.14

**Table 4C. Variable Operating Costs; Alfalfa Hay w/Sheep, 1998**

COUNTY: Mohave FARM: Mohave County 98 WATER SOURCE: Colorado River Pump, TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/3/99

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	Irrigate		0.161	1.16	1.14			2.30	10.0	23.03	G
2	Feb	Irrigate/Run Fertilizer		0.161	1.16	1.14		10.05	12.35	6.0	74.09	G
3	Apr	Swathing	0.180	0.200	2.71	1.41			4.13	7.0	28.89	H
4	Apr	Raking	0.129	0.143	1.48	1.01			2.49	7.0	17.45	H
5	Apr	Baling	0.180	0.200	5.46	1.41		3.38	10.25	7.0	71.78	H
6	Apr	Roadsiding	0.082	0.091	7.21	0.77			7.98	7.0	55.85	H
7	Apr	Apply Herbicide/Air					4.58	19.11	23.69	2.0	47.38	G
8	Apr	Apply Insecticide/Air					4.23	18.66	22.89	1.0	22.89	G
9	Jun	Irrigate/Run Fertilizer		0.161	1.16	1.14		15.94	18.25	1.0	18.25	G
10	Jul	Rerun Borders	0.090	0.100	0.67	0.85			1.52	1.0	1.52	G
11	Sep	Apply Insecticide/Air					4.75	3.22	7.97	2.0	15.94	G
12	Oct	Renovate	0.180	0.200	1.92	1.69			3.62	0.3	1.09	G
13	Oct	Plant	0.300	0.333	2.19	2.82		39.38	44.39	0.3	13.32	L
		Pickup Use60 Mi/Acre	2.000		15.12						15.12	
		Operating Interest at 10.0					49.66				49.66	
=====												
TOTAL CASH OPERATING EXPENSES (includes all times over):												
456.25 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.

OPERATING COST SUMMARY BY CLASS		SENSITIVITY OF THE NET REVENUES OVER TOTAL CASH EXPENSES (\$/ACRE)						
		Prices	- 25%	- 10%	Budgeted	+ 10%	+ 25%	Break-even Price
Land Preparation (L)	13.32	Yields	\$72.52	\$87.03	\$96.70	\$106.37	\$120.88	Break-even Price
Growing (G)	204.17							
Harvest (H)	173.98							
Post Harvest (P)	0.00	- 25%	21.27	102.86	157.26	211.65	293.24	68.74
Marketing (M)	0.00	- 10%	76.77	174.68	239.95	305.22	403.13	61.15
Operating Overhead (O)	64.78	Budgeted	113.76	222.55	295.07	367.60	476.39	57.36
	=====	+ 10%	150.76	270.42	350.20	429.98	549.65	54.25
Total (T)	\$456.25	+ 25%	206.25	342.24	432.89	523.55	659.53	50.52
		Break-even Yield	5.19	4.01	3.49	3.08	2.62	

**Table 4D. Resource and Cash Flow Requirements; Alfalfa Hay w/Sheep, 1998**

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 AREA: Mohave Valley YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/3/99

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	1.0	5.0	0.16		1.16	1.14				2.30
FEB C	2.0	10.0	0.32		2.33	2.28	10.05			14.65
MAR C	1.0	5.0	0.16		1.16	1.14				2.30
APR C	2.0	10.0	0.96		19.19	6.89	37.77	3.38	8.81	76.04
MAY C	2.0	10.0	0.96		19.19	6.89		3.38		29.46
JUN C	2.0	10.0	0.96		19.19	6.89	45.10	3.38	4.58	79.14
JUL C	1.0	5.0	0.90		18.70	6.60	10.05	3.38		38.72
AUG C	2.0	10.0	0.96		19.19	6.89	20.09	3.38		49.55
SEP C	2.0	10.0	0.96		19.19	6.89	16.48	3.38	9.50	55.44
OCT C	1.0	5.0	0.95		19.26	7.10		15.19		41.56
NOV C	1.0	5.0	0.16		1.16	1.14				2.30
Pickup Use60 Mi/Acre					15.12					15.12
Operating Interest at 10.0									49.66	49.66
<b>Total</b>	<b>17.0</b>	<b>85.0</b>	<b>7.43</b>		<b>154.86</b>	<b>53.83</b>	<b>139.53</b>	<b>35.47</b>	<b>72.55</b>	<b>456.25</b>
<b>%</b>					<b>33.94</b>	<b>11.80</b>	<b>30.58</b>	<b>7.77</b>	<b>15.90</b>	<b>100.00</b>

**TOTAL RESOURCE REQUIREMENTS ( per Acre)**

Total N 223.8  
 Total P 38.8  
 Total K 0.0  
 Total Labor 7.4  
 Total Water 85.0

**TOTAL ENERGY REQUIREMENTS ( per Acre)**

Diesel Fuel 21.8 Gal  
 Unleaded Gas 6.0 Gal  
 Electric / Pumping 310.0 KWH  
 All Direct Energy 4.8 M BTU

**EQUIPMENT REQUIREMENTS ( per Acre)**

Bale Wagon, SP PRC 0.57 Hr	Baler, 3 wire w/motor 1.26 Hr	Border Disk, 6' Disk 0.09 Hr
Offset Disk, 13.5' 0.05 Hr	Pickup Truck, 1/2 Ton 2.00 Hr	Rake, 9.5' LH AND RH 0.90 Hr
Seeder, Broadcast 0.09 Hr	Tractor, 100 PTO HP, 2.40 Hr	Windrower, 14.0', HS, SC 1.26 Hr

**MATERIALS REQUIREMENT ( per Acre)**

10-34-00, Lqd 10.00 Ga	32-00-00, URAN 32, Lqd 60.00 Ga	Alfalfa Sd, Cert 4.50 Lb
Disulfoton 2.00 Pt	Methomyl 1.00 Pt	Trifluralin 40.00 Lb
Twine, Plastic, 6500 ' 3.43 TF	Water, Pump 85.00 AI	

**LABOR REQUIREMENT ( per Acre)**

Harvest 3.80 Hr	Irrigators 2.74 Hr	Tractor 0.90 Hr
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\*NOTE: P = Previous Year C = Current Year N = Next Year

**Table 4E. Schedule of Operations; Alfalfa Hay w/Sheep, 1998**

COUNTY: Mohave FARM: Mohave County 98 WATER SOURCE: Colorado River Pump, TILLAGE: Conventional  
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Mohave Valley YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/3/99

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			\$ / Unit
1	Jan	10.0	Irrigate			6.20	Water, Pump	5.00	Al	2.79	AF	Irrigators
2	Feb	6.0	Irrigate/Run Fertilizer			6.20	Water, Pump	5.00	Al	2.79	AF	Irrigators
							32-00-00, URAN 32,	10.00	Ga	173.00	Tn	
3	Apr	7.0	Swathing		Windrower, 14.0', HS, SC	5.00						Harvest
4	Apr	7.0	Raking		100 Rake, 9.5' LH AND RH	7.00						Harvest
5	Apr	7.0	Baling		100 Baler, 3 wire w/motor	5.00	Twine, Plastic, 6500'	0.49	TF	6.57	TF	Harvest
6	Apr	7.0	Roadsiding		Bale Wagon, SP PRC	11.00						Tractor
7	Apr	2.0	Apply Herbicide/Air		CST Air Apply Granules 50lbs		Trifluralin	20.00	Lb	0.91	Lb	4.58 Ac
8	Apr	1.0	Apply Insecticide/Air		CST Air Spray, 3 Gal Mix		Disulfoton	2.00	Pt	71.08	Ga	4.23 Ac
9	Jun	1.0	Irrigate/Run Fertilizer			6.20	Water, Pump	5.00	Al	2.79	AF	Irrigators
							10-34-00, Lqd	10.00	Ga	266.40	Tn	
10	Jul	1.0	Rerun Borders		100 Border Disk, 6' Disk	10.00						Tractor
11	Sep	2.0	Apply Insecticide/Air		CST Air Spray, 5 Gal Mix		Methomyl	0.50	Pt	49.05	Ga	4.75 Ac
12	Oct	0.3	Renovate		100 Offset Disk, 13.5'	5.00						Tractor
13	Oct	0.3	Plant		100 Seeder, Broadcast	3.00	Alfalfa Sd, Cert	15.00	Lb	250.00	CW	Tractor
			Pickup use 60 Mi/Ac		Pickup Truck, 1/2 Ton	0.50						

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