

Table 5A. Income and Cash Operating Summary; Alfalfa Hay Production, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Maricopa YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

Item	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME	Alfalfa	Ton	7.50	\$97.00	\$727.50	\$760.00
	Grazing	Head Days	250.00	\$0.13	\$32.50	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
	Paid Labor (including benefits)				61.24	
	Tractor/Self Propelled			0.37		
	Irrigation			60.88		
	Chemicals and Custom Applications				19.52	
	Herbicide			19.52		
	Farm Machinery and Vehicles				8.04	
	Diesel Fuel			4.03		
	Repairs and Maintenance			4.00		
	Irrigation Water (excluding labor)				237.00	
	Water Assessment (See Note Below) **					
	Other Purchased Inputs & Seed/Transplants			6.63	6.63	
	TOTAL CASH LAND PREPARATION AND GROWING EXPENSES				332.43	
CASH HARVEST AND POST HARVEST EXPENSES						
	Paid Labor (including benefits)				36.67	
	Tractor/Self Propelled			21.88		
	Other/Contract			14.79		
	Farm Machinery and Vehicles				111.78	
	Diesel Fuel			14.02		
	Repairs and Maintenance			97.75		
	Other Materials				27.86	
	TOTAL HARVEST AND POST HARVEST EXPENSE				176.31	
	OPERATING OVERHEAD PICKUP USE				10.27	
	OPERATING INTEREST AT 10.0%				26.30	
	TOTAL CASH OPERATING EXPENSES				\$545.31	
	RETURNS OVER CASH OPERATING EXPENSES				\$214.69	

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

** A water assessment charge of \$19.80 per Acre is included as an ownership cost in Table B.

Table 5B. Allocations of Ownership Costs; Alfalfa Hay Production, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
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Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$97.00 / Tn	\$760.00		\$760.00	
TOTAL OPERATING EXPENSES	\$545.31		\$545.31	
RETURN OVER CASH OPERATING EXPENSES		\$214.69		\$214.69
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	12.28		12.28	
General and Office Overhead (5.0% of Total Operating Exp.)	27.27		27.27	
General Farm Maintenance (3.0% of Total Operating Exp.)	16.36		16.36	
Total Cash Overhead Expenses	55.90		55.90	
Total Cash Operating and Overhead Cost	601.22		601.22	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$158.78		\$158.78
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			83.71	
Interest on Equity, Machinery and Vehicles			6.45	
Stand Establishment (3 year crop)	119.81		119.81	
Total Capital Allocations	119.81		209.97	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$38.98		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				(\$51.18)
Land Cost / Ownership (100% Equity)				
Property Taxes (\$447.00 X 16.0% X 0.169)	12.15		12.15	
Opportunity Interest on Land (100% X 6.0 X \$447.00)			26.82	
Water Assessment	19.80		19.80	
Total Land Costs	31.95		58.77	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$7.03		
RETURNS TO MANAGEMENT AND RISK ----->				(\$109.95)
Management Services (8% of Total Operation Expenses)			43.63	
TOTAL OWNERSHIP COST	207.66		368.26	
TOTAL COST	\$752.97		\$913.58	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$7.03		
RETURNS TO RISK (PROFITS) ----->				(\$153.58)
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb)		\$68.38		\$68.38
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$27.69		\$49.10
BREAK-EVEN PRICE TO COVER TOTAL COST		\$96.06		\$117.48

Table 5C. Variable Operating Costs; Alfalfa Hay Production, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
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 AREA: Maricopa YIELD: 7.5 Tn / Acre PREVIOUS CROP: Cotton, Pima DATE: 2/18/99

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	Feb	Irrigate		0.455				3.10	15.00	18.10	8.0	144.84	G
2	Mar	Irrigate/Run Herbicide		0.455				3.10	21.51	24.61	3.0	73.84	G
3	Feb	Rerun Borders	0.500	0.556	2.57	3.79				6.36	3.0	19.09	G
4	Mar	Swathing	0.180	0.200	2.67	1.36				4.03	8.0	32.24	H
5	Mar	Raking	0.150	0.167	1.38	1.37				2.75	8.0	21.99	H
6	Mar	Baling	0.150	0.167	4.19	1.37		3.48		9.03	8.0	72.28	H
7	Mar	Roadsiding	0.064	0.071	5.74	0.48				6.23	8.0	49.80	H
8	Jun	Irrigate		0.562				3.84	18.00	21.83	4.0	87.34	G
9	Oct	Renovate	0.180	0.200	1.10	1.64				2.74	0.1	0.27	G
10	Oct	Plant	0.225	0.250	2.22	2.05		66.25		70.52	0.1	7.05	L
		Pickup Use40 Mi/Acre	1.333		10.27							10.27	
		Operating Interest at 10.0						26.30				26.30	
TOTAL CASH OPERATING EXPENSES (includes all times over):											545.31	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 \$19.80 per Acre is included as an ownership cost in Table B.

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)	7.05	Yields	\$72.75	\$87.30	\$97.00	\$106.70	\$121.25		
Growing (G)	325.37								
Harvest (H)	176.31								
Post Harvest (P)	0.00	- 25%	5.6	-93.25	-11.40	43.16	97.72	179.56	89.33
Marketing (M)	0.00	- 10%	6.8	-37.85	60.36	125.84	191.31	289.52	78.36
Operating Overhead (O)	36.57	Budgeted	7.5	-0.92	108.21	180.96	253.71	362.83	72.87
	=====	+ 10%	8.3	36.01	156.05	236.08	316.10	436.14	68.38
Total (T)	\$545.31	+ 25%	9.4	91.41	227.82	318.75	409.69	546.10	63.00
		Break-even Yield		7.52	5.80	5.04	4.45	3.79	

Table 5D. Resource and Cash Flow Requirements; Alfalfa Hay Production, 1998

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Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)						
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total
FEB C	1.0	5.0	1.01	15.00	2.57	6.90				24.47
MAR C	1.0	5.0	1.06	15.00	13.97	7.69	6.51	3.48		46.65
APR C	2.0	10.0	1.51	30.00	13.97	10.79		3.48		58.25
MAY C	3.0	15.0	1.97	45.00	13.97	13.90	6.51	3.48		82.86
JUN C	2.0	12.0	2.28	36.00	16.54	16.05		3.48		72.07
JUL C	2.0	11.0	1.62	33.00	13.97	11.52	6.51	3.48		68.49
AUG C	1.0	6.0	1.17	18.00	13.97	8.42		3.48		43.87
SEP C	1.0	5.0	1.62	15.00	16.54	11.48		3.48		46.51
OCT C	1.0	5.0	1.11	15.00	14.30	8.06		10.11		47.47
NOV C	1.0	5.0	0.46	15.00		3.10				18.10
Pickup Use40 Mi/Acre					10.27					10.27
Operating Interest at 10.0									26.30	26.30
Water Assessment				**						
Total	15.0	79.0	13.81	237.00	130.09	97.92	19.52	34.48	26.30	545.31
%				43.46	23.86	17.96	3.58	6.32	4.82	100.00

TOTAL RESOURCE REQUIREMENTS (per Acre)

Total N 0.0
 Total P 0.0
 Total K 0.0
 Total Labor 13.8
 Total Water 79.0

TOTAL ENERGY REQUIREMENTS (per Acre)

Diesel Fuel 23.8 Gal
 Unleaded Gas 4.0 Gal
 All Direct Energy 3.8 M BTU

EQUIPMENT REQUIREMENTS (per Acre)

Bale Wagon, SP PRC 0.51 Hr	Baler, 3 wire w/motor 1.20 Hr	Border Disk, 6' Disk 1.50 Hr
Grain Drill, 14' 0.02 Hr	Pickup Truck, 1/2 Ton 1.33 Hr	Rake, 9.5' LH AND RH 1.20 Hr
Spring Tooth Renovator, 0.02 Hr	Tractor, 50 PTO HP, 0.02 Hr	Tractor, 70 PTO HP, 3.92 Hr
Windrower, 14.0', HS, SC 1.44 Hr		

MATERIALS REQUIREMENT (per Acre)

Alfalfa Sd, Cert 2.50 Lb	Baling Twine (6500') 4.00 TF	EPTC	4.20 Pt
Water, District 79.00 AI			

LABOR REQUIREMENT (per Acre)

Harvest 2.17 Hr	Irrigators 8.92 Hr	Tractor 2.72 Hr
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*NOTE: P = Previous Year C = Current Year N = Next Year

** A water assessment charge of \$19.80 per Acre is included as an ownership cost in Table B.

Table 5E. Schedule of Operations; Alfalfa Hay Production, 1998

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional
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First No.	Month	Times	Operation	Equipment/ Custom Oper		Job Rate Acres/Hr	Material Use Name	Material Use and Cost			Service Cost \$ / Unit	Labor Type
				HP	Self-Prop./ Implement			Appl. Rate	\$ / Unit	\$ / Unit		
1	Feb	8.0	Irrigate			2.20	Water, District	5.00	AI	36.00	AF	Irrigators
2	Mar	3.0	Irrigate/Run Herbicide			2.20	Water, District EPTC	5.00	AI	36.00	AF	Irrigators
3	Feb	3.0	Rerun Borders	70	Border Disk, 6' Disk	1.80						Irrigators
4	Mar	8.0	Swathing		Windrower, 14.0', HS, SC	5.00						Harvest
5	Mar	8.0	Raking		70 Rake, 9.5' LH AND RH	6.00						Tractor
6	Mar	8.0	Baling		70 Baler, 3 wire w/motor	6.00	Baling Twine (6500')	0.50	TF	6.57	TF	Tractor
7	Mar	8.0	Roadsiding		Bale Wagon, SP PRC	14.00						Harvest
8	Jun	4.0	Irrigate			1.78	Water, District	6.00	AI	36.00	AF	Irrigators
9	Oct	0.1	Renovate		50 Spring Tooth Renovator, 16'	5.00						Tractor
10	Oct	0.1	Plant		70 Grain Drill, 14'	4.00	Alfalfa Sd, Cert	25.00	Lb	250.00	CW	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.

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