

Table 5A. Income and Cash Operating Cost Summary, Alfalfa Hay, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Marana YIELD: 8.3 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/14/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Alfalfa	Ton	8.30	\$82.0000	\$680.60	\$680.60	_____
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					25.23	_____
Irrigation				25.23		_____
Chemicals & Custom Applications					8.74	_____
Insecticides				8.74		_____
Farm Machinery and Vehicles					0.00	_____
Irrigation Water (excluding labor)					198.00	_____
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					231.97	_____
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					31.54	_____
Tractor/Self Propelled				18.25		_____
Other/Contract				13.29		_____
Farm Machinery and Vehicles					53.89	_____
Diesel Fuel				12.71		_____
Repairs & Maint.				41.18		_____
Other Materials					23.66	_____
TOTAL HARVEST AND POST HARVEST EXPENSE					109.09	_____
OPERATING OVERHEAD->PICKUP USE					10.04	_____
OPERATING INTEREST AT 9.0%					0.14	_____
TOTAL CASH OPERATING EXPENSES					\$351.25	_____
RETURNS OVER CASH OPERATING EXPENSES					\$329.35	_____

Notes: The above figures do not include ownership costs, see Table 5B on Next Page for detailed cost allocation.

Table 5B. Allocation of Ownership Costs; Alfalfa Hay, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Marana YIELD: 8.3 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/14/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 82.0000/Tn	\$680.60		\$680.60	
TOTAL OPERATING EXPENSES	351.24		351.24	
RETURN OVER CASH OPERATING EXPENSES		\$329.35		\$329.35
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	7.88		7.88	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	17.56		17.56	
General Farm Maint. (3% of Tot. Oper. Exp.)	10.54		10.54	
Total Cash Overhead Expenses	<u>35.98</u>		<u>35.98</u>	
Total Cash Oper. & Over. Cost	387.23		387.23	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		293.36		293.36
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			54.54	
Interest on Equity, Machinery & Vehicles			3.38	
Stand Establishment (3 Year Crop)	91.96		91.96	
Total Capital Allocations	91.96		<u>149.88</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		201.40		
RETURNS TO LAND, MANAGEMENT & RISK				143.48
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$540 X 16% X .14778)	12.76		12.76	
Opport. Inter. on Land (100% X 6.0% X \$540)			32.40	
Total Land Costs	<u>12.76</u>		<u>45.16</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		188.64		
RETURNS TO MANAGEMENT & RISK				98.31
Management Services (8% of Tot. Oper. Exp.)			28.09	
TOTAL OWNERSHIP COST	<u>140.71</u>		<u>259.13</u>	
TOTAL COST	<u>\$491.95</u>		<u>\$610.38</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$188.64		
RETURN TO RISK (PROFITS)				\$70.21
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Tn)		\$42.31		\$42.31
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$16.95		\$31.22
BREAK-EVEN PRICE TO COVER TOTAL COST		\$59.27		\$73.53

Table 5C. Variable Operating Costs; Alfalfa Hay, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Marana YIELD: 8.3 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/14/96

No.	First Month	Operation	— Hours * —		Operating Costs (\$/Acre*)					Tot. Cash Expense	Class		
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials	Total			Times	
1	Mar	Irrigate		0.300		2.10			16.50	18.60	12.0	223.20	G
2	Apr	Swathing	0.180	0.200	2.40	1.40				3.80	7.0	26.63	H
3	Apr	Raking	0.150	0.167	1.16	1.40				2.56	7.0	17.93	H
4	Apr	Baling	0.129	0.143	3.06	1.20		3.38		7.64	7.0	53.49	H
5	Apr	Roadsiding	0.064	0.071	1.07	0.50				1.57	7.0	11.00	H
6	Aug	Apply Insecticide/Air						6.00	2.74	8.74	1.0	8.74	G
		Pickup Use 40 Mi/Ac	1.330		10.04							10.04	O
		Operating Interest at 9.00%						0.14				0.14	O
TOTAL CASH OPERATING EXPENSES:					\$63.93	\$56.70	\$6.14	\$224.40				\$351.17	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.

OPERATING COST SUMMARY BY CLASS			SENSITIVITY OF NET REVENUES OVER TOTAL CASH EXPENSES (\$/Acre)						
		Prices ->		-25%	-10%	Budgeted	+10%	+25%	
Land Preparation (L)	\$0.00								
Growing (G)	231.94								
Harvest (H)	109.04	Yields		\$61.50	\$73.80	\$82.00	\$90.20	\$102.50	Break-even
Post Harvest (P)	0.00								
Marketing (M)	0.00	-25%	6.2	58.92	135.49	186.54	237.58	314.15	52.03
Operating Overhead (O)	10.18	-10%	7.4	119.13	211.02	272.27	333.52	425.40	45.55
		Budgeted	8.3	159.27	261.36	329.42	397.48	499.57	42.30
Total (T)	\$351.17	+10%	9.1	199.42	311.71	386.58	461.45	573.75	39.65
		+25%	10.3	259.63	387.24	472.31	557.39	685.00	36.47
		Break-even Yield		5.00	3.99	3.51	3.14	2.70	

Table 5D. Resource and Cash Flow Requirements; Alfalfa Hay, 1996

COUNTY: Pima FARM: Pima County Farm WATER SOURCE: C-MID TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Marana YIELD: 8.3 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/14/96

Month *	Number Irrig.	Water Applied (Inches)	Total Labor (Hrs)	Operating Cost (\$/Acre)						
				Purchased Water	Fuel, Oil & Repairs	Labor	Chemicals	Other Purchases	Services	Total
MAR C	1.0	6.0	0.30	16.50		2.10				18.60
APR C	1.0	6.0	0.88	16.50	7.70	6.61		3.38		34.19
MAY C	2.0	12.0	1.18	33.00	7.70	8.71		3.38		52.79
JUN C	2.0	12.0	1.18	33.00	7.70	8.71		3.38		52.79
JUL C	2.0	12.0	1.18	33.00	7.70	8.71		3.38		52.79
AUG C	2.0	12.0	1.18	33.00	7.70	8.71	2.74	3.38	6.00	61.53
SEP C	1.0	6.0	0.88	16.50	7.70	6.61		3.38		34.19
OCT C	1.0	6.0	0.88	16.50	7.70	6.61		3.38		34.19
Pickup Use	40 Mi/Ac				10.04					10.04
Operating Interest	at 9.0%								0.14	0.14
Total	12.0	72.0	7.66	198.00	63.93	56.77	2.74	23.66	6.14	351.25
%				56.37	18.20	16.16	0.78	6.73	1.74	100.00
TOTAL RESOURCES REQUIREMENTS (/Acre)				TOTAL ENERGY REQUIREMENTS (/Acre)						
Total N	0.0 lbs			Diesel Fuel	14.7 Gal					
Total P	0.0 lbs			Regular Gas	0.0 Gal					
Total K	0.0 lbs			NonLead Gas	4.0 Gal					
Total Labor	7.6 Hrs									
Total Water	72.0 AI			All Direct Energy	2.5 M BTU					
EQUIPMENT REQUIREMENTS (/Acre)										
Windrower, 14.0', HS, SC	1.26 Hrs		Tractor, 50 PTO HP, MFWD	1.05 Hrs		Rake, 9.5' LH AND RH	1.05 Hrs			
Tractor, 70 PTO HP, MFWD	0.90 Hrs		Baler, 3 wire w/motor	0.90 Hrs		Bale Wagon, SP PRC	0.45 Hrs			
Pickup Truck, 1/2 Ton	1.33 Hrs									
MATERIALS REQUIREMENTS (/Acre)										
Water, District	72.00 AI		Baling Wire (6500')	3.43 TF		Dimethoate	1.00 Pt			
LABOR REQUIREMENTS (/Acre)										
Irrigators	3.60 Hrs		Harvest	1.90 Hrs		Tractor	2.17 Hrs			

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

Table 5E. Schedule of Operations; Alfalfa Hay, 1996

COUNTY: Pima	FARM: Pima County Farm	WATER SOURCE: C-MID	TILLAGE: Conventional
CROP: Alfalfa Hay w/Graze	ACRES: 1.0	IRRIGATION SYSTEM: Flood Basin	SOIL: Sandy-Loam
AREA: Marana	YIELD: 8.3 Tn/Acre	PREVIOUS CROP: Alfalfa Hay	DATE: 10/14/96

No.	First Month	Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	Material Use & Cost			Labor Type
				HP	Self-Prop./Implem.		Name	Appl. Rate	\$/Unit	
1	Mar	12.0	Irrigate			3.33	Water, District	6.00 AI	33.00 AF	Irrigator
2	Apr	7.0	Swathing		Windrower, 14.0', HS, S	5.00				Harvest
3	Apr	7.0	Raking	50	Rake, 9.5' LH AND RH	6.00				Tractor
4	Apr	7.0	Baling	70	Baler, 3 wire w/motor	7.00	Baling Wire (6500	0.49 TF	6.57 TF	Tractor
5	Apr	7.0	Roadsiding		Bale Wagon, SP PRC	14.00				Harvest
6	Aug	1.0	Apply Insecticide/Air Pickup Use 40 Mi/Ac		CST Air Spray, 3 Gal Mi Pickup Truck, 1/2 Ton	0.75	Dimethoate	1.00 Pt	20.90 Ga	6.00 Ac

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

ARIZONA COOPERATIVE EXTENSION
 Department of Ag & Resource Economics
 The University of Arizona F 7/10