

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

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 9.5 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/04/96

Item	Unit	Quantity	Price /Unit	Budgeted /Acre	Total /Acre	Your Farm Budget
INCOME -> Alfalfa	Ton	9.50	\$82.0000	\$779.00	\$779.00	
CASH LAND PREPARATION AND GROWING EXPENSES (including sales tax)						
Paid Labor (including benefits)					36.30	
Tractor/Self Propelled				1.97		
Irrigation				34.33		
Chemicals & Custom Applications					41.04	
Fertilizers				33.08		
Insecticides				7.96		
Farm Machinery and Vehicles					2.05	
Diesel Fuel				1.13		
Repairs & Maint.				0.92		
Irrigation (excluding labor)					73.98	
Natural Gas/Pumping				64.93		
Repairs & Maint.				9.05		
TOTAL CASH LAND PREPARATION AND GROWING EXPENSES					153.37	
CASH HARVEST AND POST HARVEST EXPENSES						
Paid Labor (including benefits)					39.51	
Tractor/Self Propelled				12.61		
Other/Contract				26.89		
Farm Machinery and Vehicles					68.61	
Diesel Fuel				21.82		
Repairs & Maint.				46.79		
Other Materials					22.35	
TOTAL HARVEST AND POST HARVEST EXPENSE					130.47	
OPERATING OVERHEAD->PICKUP USE					9.91	
OPERATING INTEREST AT 9.0%					0.84	
TOTAL CASH OPERATING EXPENSES					\$294.58	
RETURNS OVER CASH OPERATING EXPENSES					\$484.42	

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

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 9.5 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/04/96

Item	- CASH COST BASIS (\$/ACRE) -		- TOTAL COST BASIS (\$/ACRE) -	
	Income & Costs	Net Returns	Income & Costs	Net Returns
TOTAL INCOME at \$ 82.0000/Tn	\$779.00		\$779.00	
TOTAL OPERATING EXPENSES	294.58		294.58	
RETURN OVER CASH OPERATING EXPENSES		\$484.41		\$484.41
CASH OVERHEAD EXPENSES				
Taxes, Housing & Insur., Farm Machinery	11.50		11.50	
Wells & Irrig. System	4.33		4.33	
Gen. & Off. Overhead (5% of Tot. Oper. Exp.)	14.72		14.72	
General Farm Maint. (3% of Tot. Oper. Exp.)	8.84		8.84	
Total Cash Overhead Expenses	<u>39.39</u>		<u>39.39</u>	
Total Cash Oper. & Over. Cost	333.98		333.98	
RETURNS OVER CASH OPER. & OVER. EXPENSES.		445.01		445.01
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery & Vehicles			76.88	
Wells & Irrig. System			52.26	
Interest on Equity, Machinery & Vehicles			6.19	
Wells & Irrig. System			12.95	
Stand Establishment (3 Year Crop)	89.02		89.02	
Total Capital Allocations	89.02		<u>237.29</u>	
RETURNS TO LAND, CAPITAL, MANAGEMENT & RISK		355.99		
RETURNS TO LAND, MANAGEMENT & RISK				207.71
LAND COSTS / OWNERSHIP (100% Equity)				
Property Taxes (\$480 X 16% X .06830)	5.24		5.24	
Opport. Inter. on Land (100% X 6.0% X \$480)			28.80	
Total Land Costs	<u>5.24</u>		<u>34.04</u>	
RETURNS TO MANAGEMENT, CAPITAL & RISK		350.75		
RETURNS TO MANAGEMENT & RISK				173.67
Management Services (8% of Tot. Oper. Exp.)			23.56	
TOTAL OWNERSHIP COST	<u>133.66</u>		<u>334.30</u>	
TOTAL COST	<u>\$428.24</u>		<u>\$628.89</u>	
RETURN TO MANAGEMENT, CAPITAL & RISK		\$350.75		
RETURN TO RISK (PROFITS)				\$150.10
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Tn)		\$31.00		\$31.00
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$14.06		\$35.19
BREAK-EVEN PRICE TO COVER TOTAL COST		\$45.07		\$66.19

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

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 9.5 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/04/96

No.	Month	First Operation	— Hours * —		Operating Costs (\$/Acre*)				Total	Times	Tot. Cash Expense	Class
			Machine	Labor	Fuel/Rps.	Labor	Cust/Ser.	Materials				
1	Mar	Apply Fert/Ground	0.060	0.067	0.54	0.56		33.08	34.18	1.0	34.18	G
2	Mar	Irrigate		0.314	5.69	2.64			8.33	13.0	108.29	G
3	Apr	Apply Insect./Ground	0.150	0.167	1.51	1.40		7.96	10.87	1.0	10.87	G
4	May	Swathing	0.180	0.200	2.55	1.68			4.23	6.0	25.38	H
5	May	Baling	0.225	0.250	3.50	2.10		3.73	9.33	6.0	55.97	H
6	May	Roadsiding	0.300	0.333	5.39	2.80			8.19	6.0	49.12	H
		Pickup Use 40 Mi/Ac	1.330		9.90						9.90	O
		Operating Interest at 9.00%						1.00			1.00	O
TOTAL CASH OPERATING EXPENSES:					\$154.54	\$75.76	\$1.00	\$63.42			\$294.72	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)	153.34								
Harvest (H)	130.46	Yields		\$61.50	\$73.80	\$82.00	\$90.20	\$102.50	Break-even
Post Harvest (P)	0.00								
Marketing (M)	0.00	-25%	7.1	176.08	263.72	322.15	380.57	468.21	36.78
Operating Overhead (O)	10.90	-10%	8.5	244.15	349.32	419.43	489.54	594.70	32.94
		Budgeted	9.5	289.53	406.38	484.28	562.18	679.03	31.02
Total (T)	\$294.71	+10%	10.4	334.91	463.44	549.13	634.82	763.36	29.45
		+25%	11.8	402.97	549.04	646.41	743.79	889.85	27.56
		Break-even Yield		3.43	2.73	2.40	2.14	1.85	

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

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 9.5 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/04/96

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	0.38		6.23	3.20	33.08				42.52
APR C	2.0	12.0	1.57		24.32	13.27	7.96	3.73			49.28
MAY C	2.0	12.0	1.41		22.81	11.87		3.73			38.41
JUN C	2.0	12.0	1.41		22.81	11.87		3.73			38.41
JUL C	2.0	12.0	1.41		22.81	11.87		3.73			38.41
AUG C	2.0	12.0	1.41		22.81	11.87		3.73			38.41
SEP C	2.0	12.0	1.41		22.81	11.87		3.73			38.41
Pickup Use 40 Mi/Ac					9.90						9.90
Operating Interest at 9.0%									1.01		1.01
Total	13.0	78.0	9.01		154.54	75.81	41.04	22.35	1.01		294.74
%					52.43	25.71	13.92	7.58	0.34		100.00

TOTAL RESOURCES REQUIREMENTS (/Acre)		TOTAL ENERGY REQUIREMENTS (/Acre)	
Total N	22.0 lbs	Diesel Fuel	21.0 Gal
Total P	104.0 lbs	Regular Gas	0.0 Gal
Total K	0.0 lbs	NonLead Gas	4.0 Gal
Total Labor	9.0 Hrs		
Total Water	78.0 AI	Natural Gas/Pumping	168.5 Therms
		All Direct Energy	20.2 M BTU

EQUIPMENT REQUIREMENTS (/Acre)			
Tractor, 100 PTO HP, MFWD	1.56 Hrs	Fertilizer Broadcaster, Towed	0.06 Hrs
Windrower, 14.0', HS, SC	1.08 Hrs	Baler, 2 Wire Auto PTO	1.35 Hrs
Pickup Truck, 1/2 Ton	1.33 Hrs	Saddle Tk Sprayer, 2 Tk 8 Row	0.15 Hrs
		Bale Wagon, SP PRC	1.80 Hrs

MATERIALS REQUIREMENTS (/Acre)			
11-52-00, Dry	200.00 Lb	Water, Pump	78.00 AI
Baling Wire (6500')	3.24 TF	Carbofuran	1.00 Pt

LABOR REQUIREMENTS (/Acre)			
Tractor	1.73 Hrs	Irrigators	4.08 Hrs
		Harvest	3.20 Hrs

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

Table 5E Schedule of Operations; Alfalfa Hay, 1996

COUNTY: Greenlee FARM: Greenlee County Farm WATER SOURCE: DEastN TILLAGE: Conventional
 CROP: Alfalfa Hay w/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam
 AREA: Duncan Valley YIELD: 9.5 Tn/Acre PREVIOUS CROP: Alfalfa Hay DATE: 10/04/96

No.	First Month	Times	Operation	Equipment/Custom Oper.		Job Rate Acres/Hr	Material Use & Cost			Service Cost \$/Unit	Labor Type
				HP	Self-Prop./Implem.		Name	Appl. Rate	\$/Unit		
1	Mar	1.0	Apply Fert/Ground	100	Fertilizer Broadcaster,	15.00	11-52-00, Dry	200.00 Lb	315.00 Tn		Tractor
2	Mar	13.0	Irrigate			3.18	Water, Pump	6.00 AI	11.38 AF		Irrigator
3	Apr	1.0	Apply Insect./Ground	100	Saddle Tk Sprayer, 2 Tk	6.00	Carbofuran	1.00 Pt	60.67 Ga		Tractor
4	May	6.0	Swathing		Windrower, 14.0', HS, S	5.00					Harvest
5	May	6.0	Baling	100	Baler, 2 Wire Auto PTO	4.00	Baling Wire (6500	0.54 TF	6.57 TF		Tractor
6	May	6.0	Roadsiding		Bale Wagon, SP PRC	3.00					Harvest
			Pickup Use 40 Mi/Ac		Pickup Truck, 1/2 Ton	0.75					

* 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 F10/ 9