COUNTY: CROP: AREA:	Pinal Alfalfa Silage/Graze Maricopa	FARM: Pinal County 98 ACRES: 1.0 YIELD: 7.4 T		ON SYSTEM: Flood	ral Arizona I Basin n, Upland	TILLAGE: Conventional SOIL: Sandy-Loam DATE: 2/18/99		
	ltem	Unit	Quantity	Price/ Unit	Budgeted /Acre	Total /Acre	Your Farm Budget	
INCOME	Silage	Ton	7.40	\$75.00	\$555.00	\$587.50		
	Sheep	Head Days	250.00	\$0.13	\$32.50			
Paid La Tra	ND PREPARATION AND abor (including benefits) actor/Self Propelled gation	GROWING EXPENSES (ind	cluding sales tax)		0.37 60.88	61.24		
	cals and Custom Applicat	tions			19.52	19.52		
Die	Machinery and Vehicles esel Fuel pairs and Maintenance				4.03 4.00	8.04		
	on Water (excluding labor Assessment (See Note B					237.00		
	Purchased Inputs & ed/Transplants				6.63	6.63		
		TOTAL CASH LAND PRE	PARATION AND GROW	ING EXPENSES		332.43		
CASH HA	RVEST AND POST HAR	VEST EXPENSES						
		TOTAL HARVEST AND P	OST HARVEST EXPENS	SE		0.00		
OPERATI	NG OVERHEAD PICK	UP USE				10.27		
OPERATI	NG INTEREST AT 10.0%					6.32		
		TOTAL CASH OPERATIN				\$349.02		
		RETURNS OVER CASH	I OPERATING EXPENSI	ES		\$238.48		

Table 4A. Income and Cash Operating Summary; Alfalfa Green Chop, 1998

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 4B. Allocations of Ownership Costs; Alfalfa Green Chop, 1998

CROP: Alfalfa Silage/Graze ACRES: 1.0	IRRIGATION SYSTEM:	Central Arizona Flood Basin Cotton, Upland	TILLAGE: Conventional SOIL: Sandy-Loam DATE: 2/18/99	
Item	CASH COST BASI Income and Costs	S (\$/ACRE) Net Returns	TOTAL COST BASIS (\$/ACRE) Income and Costs Net Returns	
TOTAL INCOME at \$75.00 / Tn TOTAL OPERATING EXPENSES RETURN OVER CASH OPERATING EXPENSES	\$587.50 \$349.02	\$238.48	\$587.50 \$349.02 \$238.48	
CASH OVERHEAD EXPENSES Taxes, Housing and Insurance, Farm Machinery General and Office Overhead (5.0% of Total Operating Exp.) General Farm Maintenance (3.0% of Total Operating Exp.) Total Cash Overhead Expenses Total Cash Operating and Overhead Cost	0.88 17.45 10.47 28.80 377.82		0.88 17.45 10.47 	
RETURNS OVER CASH OPER. AND OVER. EXPENSES CAPITAL ALLOCATIONS (100% Equity) Capital Replacement, Machinery and Vehicles Interest on Equity, Machinery and Vehicles Stand Establishment (3 year crop) Total Capital Allocations	<u> </u>	\$209.68	\$209.68 4.42 2.17 <u>119.81</u> 126.39	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK RETURNS TO LAND, MANAGEMENT AND RISK Land Cost / Ownership (100% Equity) Property Taxes (\$447.00 X 16.0% X 0.169) Opportunity Interest on Land (100% X 6.0 X \$447.00) Water Assessment	12.15	\$89.88	> \$83.29 12.15 26.82 19.80	
Total Land Costs RETURNS TO CAPITAL, MANAGEMENT AND RISK RETURNS TO MANAGEMENT AND RISK	31.95	\$57.93	58.77 > \$24.52	
Management Services (8% of Total Operation Expenses)			27.92	
TOTAL OWNERSHIP COST	180.55		241.88	
TOTAL COST RETURNS TO CAPITAL, MANAGEMENT AND RISK RETURNS TO RISK (PROFITS)	\$529.57 >	\$57.93	> (\$3.40)	
BREAK-EVEN PRICE TO COVER OPERATING COST (PER Lb) BREAK-EVEN PRICE TO COVER OWNERSHIP COST BREAK-EVEN PRICE TO COVER TOTAL COST		\$42.77 \$24.40 \$67.17	\$42.77 \$32.69 \$75.46	

Table 4C. Variable Operating Costs; Alfalfa Green Chop, 1998

COU CRO ARE		al FARM alfa Silage/Graze ACRE iricopa YIELD	S: ·	unty 98 1.0 7.4 Tn / A	IRRIGAT	SOURCE: TION SYSTEN US CROP:	Central Arizona I: Flood Basin Cotton, Upland		SOIL: S	Conventional Sandy-Loam 2/18/99	
	First	0	Hour			•	ACRE *) Per Opera		-	Tot. Cash	0
No.	Month	Operation	Machine	Labor	Fuel/Rps.	Labor Cus	/Serv. Materials	Total	Times	Expenses	Class
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	Jun	Irrigate		0.562		3.84	18.00	21.83	4.0	87.34	G
5	Oct	Renovate	0.180	0.200	1.10	1.64		2.74	0.1	0.27	G
6	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					6.32			6.32	
				тот	AL CASH OPE	RATING EXP	ENSES (includes al	l times ove	er):	349.02	т

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)

 Land Preparation (L)
 7.05

 Prices
 - 25%

 - 10%
 Budgeted

 + 10%
 + 25%

Land Preparation (L)	7.05	Prices		- 25%	- 10%	Buagetea	+ 10%	+ 25%	
Growing (G) Harvest (H)	325.37 0.00	Yields		\$56.25	\$67.50	\$75.00	\$82.50	\$93.75 Bre	eak-even Price
Post Harvest (P)	0.00	- 25%	5.6	-48.56	13.88	55.51	97.13	159.57	65.00
Marketing (M)	0.00	- 10%	6.7	13.88	88.81	138.76	188.71	263.63	54.17
Operating Overhead (O)	16.59	Budgeted	7.4	55.51	138.76	194.26	249.76	333.01	48.75
		+ 10%	8.1	97.13	188.71	249.76	310.81	402.38	44.32
Total (T)	\$349.02	+ 25%	9.3	159.57	263.63	333.01	402.38	506.44	39.00
		Break-even Yi	ield	6.41	5.34	4.81	4.37	3.85	

Table 4D. Resource and Cash Flow Requirements; Alfalfa Green Chop, 1998

Number Irrigations Applied (inches) Total Labor (Hrs) Purchased Water Fuel, Oil and Repairs FEB C 1.0 5.0 1.01 15.00 2.57 MAR C 1.0 5.0 0.46 15.00 2.57 MAR C 1.0 5.0 0.46 30.00 30.00 MAY C 3.0 15.0 1.37 45.00 2.57 JUN C 2.0 11.0 1.02 33.00 2.57 JUL C 2.0 11.0 1.02 33.00 2.57 JUL C 2.0 11.0 1.02 33.00 2.57 JUL C 2.0 11.0 1.02 33.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 ickup Use40 Mi/Acre	Labor 6.90 3.10 6.21 9.31 11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per 1 5.3 Ga 4.0 Ga	6.51 6.51 6.51 4 19.52 5 5.59 Acre)	Other Purchases 6.62 6.62	Services 6.32 6.32 1.81	Total 24.47 24.61 36.21 60.82 50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02 100.00
MAR C 1.0 5.0 0.46 15.00 APR C 2.0 10.0 0.91 30.00 MAY C 3.0 15.0 1.37 45.00 JUN C 2.0 12.0 1.68 36.00 2.57 JUL C 2.0 11.0 1.02 33.00 AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.27 10.	3.10 6.21 9.31 11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per A 5.3 Ga 4.0 Ga	6.51 6.51 6.51 4 19.52 5 5.59 Acre)	6.62	6.32	24.61 36.21 60.82 50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
MAR C 1.0 5.0 0.46 15.00 APR C 2.0 10.0 0.91 30.00 MAY C 3.0 15.0 1.37 45.00 JUN C 2.0 12.0 1.68 36.00 2.57 JUL C 2.0 11.0 1.02 33.00 AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.27 10.	3.10 6.21 9.31 11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per A 5.3 Ga 4.0 Ga	6.51 6.51 6.51 4 19.52 5 5.59 Acre)	6.62	6.32	24.61 36.21 60.82 50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
APR C 2.0 10.0 0.91 30.00 MAY C 3.0 15.0 1.37 45.00 JUN C 2.0 12.0 1.68 36.00 2.57 JUL C 2.0 11.0 1.02 33.00 AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 10.27 10.27 Deparating Interest at 10.0 ////////////////////////////////////	6.21 9.31 11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per <i>J</i> 5.3 Ga 4.0 Ga	6.51 6.51 4 19.52 5 5.59 Acre)	6.62	6.32	36.21 60.82 50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
MAY C 3.0 15.0 1.37 45.00 JUN C 2.0 12.0 1.68 36.00 2.57 JUL C 2.0 11.0 1.02 33.00 AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 10.27 Departing Interest at 10.0 Jult crassessment 10.27 10.27 Departing Interest at 10.0 X** Departing Int	9.31 11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per 4 5.3 Ga 4.0 Ga	6.51 4 19.52 5 5.59 Acre)	6.62	6.32	60.82 50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
JUN C 2.0 12.0 1.68 36.00 2.57 JUL C 2.0 11.0 1.02 33.00 33.00 AUG C 1.0 6.0 0.56 18.00 2.57 OCT C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 ickup Use40 Mi/Acre 10.27 10.27 10.27 perating Interest at 10.0 //ater Assessment ** 10.27 Otal 15.0 79.0 8.97 237.00 18.31 67.91 5.25 5.25 5.25 5.25 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREME Diesel Fuel Unleaded Gas Total N 0.0 Unleaded Gas All Direct Energy All Direct Energy Total Labor 9.0 9.0 All Direct Energy 5.25 5.25	11.46 6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per 4 5.3 Ga 4.0 Ga	6.51 4 19.52 5 5.59 Acre)	6.62	6.32	50.03 46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
JUL C 2.0 11.0 1.02 33.00 AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 ickup Use40 Mi/Acre 10.27 10.27 operating Interest at 10.0 ////////////////////////////////////	6.94 3.84 6.90 3.47 3.10 61.24 17.55 VTS (per 4 5.3 Ga 4.0 Ga	6.51 4 19.52 5 5.59 Acre)	6.62	6.32	46.45 21.83 24.47 25.43 18.10 10.27 6.32 349.02
AUG C 1.0 6.0 0.56 18.00 SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 10.27 perating Interest at 10.0 ////////////////////////////////////	3.84 6.90 3.47 3.10 61.24 17.55 NTS (per <i>J</i> 5.3 Ga 4.0 Ga	4 19.52 5 5.59 Acre)	6.62	6.32	21.83 24.47 25.43 18.10 10.27 6.32 349.02
SEP C 1.0 5.0 1.01 15.00 2.57 OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 0.33 ickup Use40 Mi/Acre 10.27 10.27 perating Interest at 10.0 ////////////////////////////////////	6.90 3.47 3.10 61.24 17.55 NTS (per <i>J</i> 5.3 Ga 4.0 Ga	4 19.52 5 5.59 Acre)	6.62	6.32	24.47 25.43 18.10 10.27 6.32 349.02
OCT C 1.0 5.0 0.50 15.00 0.33 NOV C 1.0 5.0 0.46 15.00 10.27 ickup Use40 Mi/Acre 10.27 10.27 10.27 operating Interest at 10.0 ** 10.27 10.27 /ater Assessment ** 237.00 18.31 67.91 5.25 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREME Diesel Fuel Total N 0.0 Unleaded Gas Unleaded Gas Total K 0.0 All Direct Energy All Direct Energy	3.47 3.10 61.24 17.55 NTS (per <i>J</i> 5.3 Ga 4.0 Ga	4 19.52 5 5.59 Acre)	6.62	6.32	25.43 18.10 10.27 6.32 349.02
NOV C 1.0 5.0 0.46 15.00 ickup Use40 Mi/Acre 10.27 ipperating Interest at 10.0 ** 10.27 /ater Assessment ** 237.00 18.31 67.91 5.25 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS (per Acre) Total N 0.0 Diesel Fuel Total P 0.0 Unleaded Gas Total K 0.0 All Direct Energy Total Labor 9.0 400	3.10 61.24 17.55 NTS (per J 5.3 Ga 4.0 Ga	4 19.52 5 5.59 Acre)	6.62	6.32	18.10 10.27 6.32 349.02
ickup Use40 Mi/Acre 10.27 perating Interest at 10.0 /ater Assessment ** otal 15.0 79.0 8.97 237.00 18.31 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS Total N 0.0 Diesel Fuel Unleaded Gas Total K 0.0 All Direct Energy Total Labor 9.0	61.24 17.55 NTS (per <i>J</i> 5.3 Ga 4.0 Ga	4 19.52 5 5.59 Acre)		6.32	10.27 6.32 349.02
operating Interest at 10.0 /ater Assessment ** otal 15.0 79.0 8.97 237.00 18.31 % 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS (per Acre) Total N 0.0 Diesel Fuel Total P 0.0 Unleaded Gas Total K 0.0 All Direct Energy Total Labor 9.0 9.0	17.55 NTS (per 1 5.3 Ga 4.0 Ga	5 5.59 Acre)		6.32	6.32
Vater Assessment ** otal 15.0 79.0 8.97 237.00 18.31 % 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREME Total N 0.0 Diesel Fuel Total P 0.0 Unleaded Gas Total K 0.0 All Direct Energy Total Labor 9.0 9.0	17.55 NTS (per 1 5.3 Ga 4.0 Ga	5 5.59 Acre)		6.32	349.02
otal15.079.08.97237.0018.31%67.915.25OTAL RESOURCE REQUIREMENTS (per Acre)TOTAL ENERGY REQUIREMETotal N0.0Diesel FuelTotal P0.0Unleaded GasTotal K0.0All Direct EnergyTotal Labor9.0	17.55 NTS (per 1 5.3 Ga 4.0 Ga	5 5.59 Acre)			
% 67.91 5.25 OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREME Total N 0.0 Diesel Fuel Total P 0.0 Unleaded Gas Total K 0.0 All Direct Energy Total Labor 9.0	17.55 NTS (per 1 5.3 Ga 4.0 Ga	5 5.59 Acre)			
OTAL RESOURCE REQUIREMENTS (per Acre) TOTAL ENERGY REQUIREMENTS Total N 0.0 Total P 0.0 Total K 0.0 Total Labor 9.0	NTS (per 1 5.3 Ga 4.0 Ga	Acre)	1.90	1.81	100.00
Total N0.0Diesel FuelTotal P0.0Unleaded GasTotal K0.0All Direct EnergyTotal Labor9.0	5.3 Ga 4.0 Ga	,			
Total N0.0Diesel FuelTotal P0.0Unleaded GasTotal K0.0All Direct EnergyTotal Labor9.0	5.3 Ga 4.0 Ga	,			
Total P0.0Unleaded GasTotal K0.0All Direct EnergyTotal Labor9.0	4.0 Ga	ai			
Total K 0.0 All Direct Energy Total Labor 9.0		al			
Total Labor 9.0	12 M	BTU			
	1.2 101	ыо			
QUIPMENT REQUIREMENTS (per Acre)					
Border Disk, 6' Disk 1.50 Hr Grain Drill, 14' 0.02	Шr	Dickup T	ruck 1/2 Ton	1.33 Hr	
Spring Tooth Renovator, 0.02 Hr Grain Drill, 14 0.02			ruck, 1/2 Ton 70 PTO HP,	1.33 Hr 1.52 Hr	
	ПГ	rracior,	TUPIU HP,	1.52 Hr	
IATERIALS REQUIREMENT (per Acre)					
Alfalfa Sd, Cert 2.50 Lb EPTC 4.20	Pt	Water, Di	istrict	79.00 AI	
		water, Di	istrict	73.00 AI	

*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.

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Table 4E. Schedule of Operations; Alfalfa Green Chop, 1998

Ċ	COUNTY CROP: AREA:	:Pinal Alfalfa Silage/Graze Maricopa	FARM: ACRES: YIELD:	1.0 IRRI	FER SOUR GATION S VIOUS CR	STEM: Flood Basin	5	SOIL: S	conventional andy-Loam /18/99	
М	First No.Mont	hTimes Operati	ion	Equipment/ Custom Oper HP Self-Prop./ Implement	Job Rate Acres/Hr	Material U Name	Jse and Cost Appl. Ra	 te \$/Unit	Service Cost \$ / Unit	Labor Type
1	Feb	8.0 Irrigate			2.20	Water, District	5.00 AI	36.00 AF	= Irr	igators
2	Mar	3.0 Irrigate/Run H	erbicide			Water, District EPTC	5.00 AI 1.40 Pt	36.00 AF 35.08 Ga		igators
3	Feb	3.0 Rerun Borders	6	70 Border Disk, 6' Disk	1.80				Irr	igators
4	Jun	4.0 Irrigate			1.78	Water, District	6.00 AI	36.00 AF	= Irr	igators
5	Oct	0.1 Renovate		50 Spring Tooth Renovator, 16	5.00				Tr	actor
6	Oct	0.1 Plant		70 Grain Drill, 14'	4.00	Alfalfa Sd, Cert	25.00 Lb	250.00 CW	V Tr	actor
		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.