

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

COUNTY: Pinal                      FARM: Pinal County 98                      WATER SOURCE: Central Arizona                      TILLAGE: Conventional  
 CROP: Alfalfa Silage/Graze                      ACRES: 1.0                      IRRIGATION SYSTEM: Flood Basin                      SOIL: Sandy-Loam  
 AREA: Maricopa                      YIELD: 7.4 Tn / Acre                      PREVIOUS CROP: Cotton, Upland                      DATE: 2/18/99

Item	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	
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						
	TOTAL HARVEST AND POST HARVEST EXPENSE				0.00	
OPERATING OVERHEAD PICKUP USE						
	OPERATING INTEREST AT 10.0%				10.27	
					6.32	
	TOTAL CASH OPERATING EXPENSES				\$349.02	
	RETURNS OVER CASH OPERATING EXPENSES				\$238.48	

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**

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional  
 CROP: Alfalfa Silage/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Maricopa YIELD: 7.4 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

Item	-- CASH COST BASIS (\$/ACRE) --		-- TOTAL COST BASIS (\$/ACRE) --	
	Income and Costs	Net Returns	Income and Costs	Net Returns
TOTAL INCOME at \$75.00 / Tn	\$587.50		\$587.50	
TOTAL OPERATING EXPENSES	\$349.02		\$349.02	
RETURN OVER CASH OPERATING EXPENSES		\$238.48		\$238.48
CASH OVERHEAD EXPENSES				
Taxes, Housing and Insurance, Farm Machinery	0.88		0.88	
General and Office Overhead (5.0% of Total Operating Exp.)	17.45		17.45	
General Farm Maintenance (3.0% of Total Operating Exp.)	10.47		10.47	
Total Cash Overhead Expenses	28.80		28.80	
Total Cash Operating and Overhead Cost	377.82		377.82	
RETURNS OVER CASH OPER. AND OVER. EXPENSES		\$209.68		\$209.68
CAPITAL ALLOCATIONS (100% Equity)				
Capital Replacement, Machinery and Vehicles			4.42	
Interest on Equity, Machinery and Vehicles			2.17	
Stand Establishment (3 year crop)	119.81		119.81	
Total Capital Allocations	119.81		126.39	
RETURNS TO LAND, CAPITAL, MANAGEMENT AND RISK ----->		\$89.88		
RETURNS TO LAND, MANAGEMENT AND RISK ----->				\$83.29
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 ----->		\$57.93		
RETURNS TO MANAGEMENT AND RISK ----->				\$24.52
Management Services (8% of Total Operation Expenses)			27.92	
TOTAL OWNERSHIP COST	180.55		241.88	
TOTAL COST	\$529.57		\$590.90	
RETURNS TO CAPITAL, MANAGEMENT AND RISK ----->		\$57.93		
RETURNS TO RISK (PROFITS) ----->				(\$3.40)
BREAK-EVEN PRICE TO COVER OPERATING COST ( PER Lb )		\$42.77		\$42.77
BREAK-EVEN PRICE TO COVER OWNERSHIP COST		\$24.40		\$32.69
BREAK-EVEN PRICE TO COVER TOTAL COST		\$67.17		\$75.46

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

COUNTY: Pinal      FARM: Pinal County 98      WATER SOURCE: Central Arizona      TILLAGE: Conventional  
 CROP: Alfalfa Silage/Graze      ACRES: 1.0      IRRIGATION SYSTEM: Flood Basin      SOIL: Sandy-Loam  
 AREA: Maricopa      YIELD: 7.4 Tn / Acre      PREVIOUS CROP: Cotton, Upland      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	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	
TOTAL CASH OPERATING EXPENSES (includes all times over):											349.02	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%	
Land Preparation (L)	7.05		Yields	\$56.25	\$67.50	\$75.00	\$82.50	\$93.75	Break-even Price
Growing (G)	325.37								
Harvest (H)	0.00								
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 Yield		6.41	5.34	4.81	4.37	3.85	

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

COUNTY: Pinal FARM: Pinal County 98 WATER SOURCE: Central Arizona TILLAGE: Conventional  
 CROP: Alfalfa Silage/Graze ACRES: 1.0 IRRIGATION SYSTEM: Flood Basin SOIL: Sandy-Loam  
 AREA: Maricopa YIELD: 7.4 Tn / Acre PREVIOUS CROP: Cotton, Upland DATE: 2/18/99

Month *	Number Irrigations	Water Applied (inches)	Total Labor (Hrs)	Operating Costs (\$/ACRE *)							
				Purchased Water	Fuel, Oil and Repairs	Labor	Chemicals	Other Purchases	Services	Total	
FEB C	1.0	5.0	1.01	15.00	2.57	6.90					24.47
MAR C	1.0	5.0	0.46	15.00		3.10	6.51				24.61
APR C	2.0	10.0	0.91	30.00		6.21					36.21
MAY C	3.0	15.0	1.37	45.00		9.31	6.51				60.82
JUN C	2.0	12.0	1.68	36.00	2.57	11.46					50.03
JUL C	2.0	11.0	1.02	33.00		6.94	6.51				46.45
AUG C	1.0	6.0	0.56	18.00		3.84					21.83
SEP C	1.0	5.0	1.01	15.00	2.57	6.90					24.47
OCT C	1.0	5.0	0.50	15.00	0.33	3.47		6.62			25.43
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									6.32		6.32
Water Assessment				**							
<b>Total</b>	<b>15.0</b>	<b>79.0</b>	<b>8.97</b>	<b>237.00</b>	<b>18.31</b>	<b>61.24</b>	<b>19.52</b>	<b>6.62</b>	<b>6.32</b>		<b>349.02</b>
<b>%</b>				<b>67.91</b>	<b>5.25</b>	<b>17.55</b>	<b>5.59</b>	<b>1.90</b>	<b>1.81</b>		<b>100.00</b>

TOTAL RESOURCE REQUIREMENTS ( per Acre)

Total N	0.0
Total P	0.0
Total K	0.0
Total Labor	9.0
Total Water	79.0

TOTAL ENERGY REQUIREMENTS ( per Acre)

Diesel Fuel	5.3 Gal
Unleaded Gas	4.0 Gal
All Direct Energy	1.2 M BTU

EQUIPMENT REQUIREMENTS ( per Acre)

Border Disk, 6' Disk	1.50 Hr	Grain Drill, 14'	0.02 Hr	Pickup Truck, 1/2 Ton	1.33 Hr
Spring Tooth Renovator,	0.02 Hr	Tractor, 50 PTO HP,	0.02 Hr	Tractor, 70 PTO HP,	1.52 Hr

MATERIALS REQUIREMENT ( per Acre)

Alfalfa Sd, Cert	2.50 Lb	EPTC	4.20 Pt	Water, District	79.00 Al
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LABOR REQUIREMENT ( per Acre)

Irrigators	8.92 Hr	Tractor	0.05 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 4E. Schedule of Operations; Alfalfa Green Chop, 1998**

COUNTY: Pinal                      FARM: Pinal County 98                      WATER SOURCE: Central Arizona                      TILLAGE: Conventional  
 CROP: Alfalfa Silage/Graze      ACRES: 1.0                      IRRIGATION SYSTEM: Flood Basin                      SOIL: Sandy-Loam  
 AREA: Maricopa                      YIELD: 7.4 Tn / Acre                      PREVIOUS CROP: Cotton, Upland                      DATE: 2/18/99

First No.	Month	Times	Operation	Equipment/ Custom Oper		Job Rate Acres/Hr	----- Material Use Name	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
								1.40	Pt	35.08	Ga	
3	Feb	3.0	Rerun Borders	70	Border Disk, 6' Disk	1.80						Irrigators
4	Jun	4.0	Irrigate			1.78	Water, District	6.00	AI	36.00	AF	Irrigators
5	Oct	0.1	Renovate	50	Spring Tooth Renovator, 16'	5.00						Tractor
6	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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