

APPENDIX G

CROP BUDGETS

Assumptions

Overhead

General and Office Overhead	5%	of operating expenses
General Farm Maintenance	3%	of operating expenses
Farm Management	10%	of operating expenses
Consulting Services	1%	of operating expenses

Labor

Hourly Rate		\$8.00
FICA	7.65%	\$0.61
Worker Compensation	7.73%	\$0.62
FUTA	1.56%	\$0.12
Total		\$9.36

Fuel

Diesel	1.00 \$/gallon
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Pickup Use

Cost per mile	\$0.360	dollars
Average Miles per hour	30	mph

Irrigation Expenses

Cost of Electricity	0.06 \$/kwh
Cost of Groundwater	
Depth to Water	400 ft
Pump against	60 psi
Total Head	538.6 ft
Efficiency	0.54
Power Requirement	1023.34 kwh/acre-ft
Power Cost	\$61.40 \$/acre-ft
Repairs	\$4.25 \$/acre-ft
Cost of Groundwater	\$65.65 \$/acre-ft
Labor for surface Irrigation	0.6 hours/acre-ft
Sprinkler Maintenance	\$5.00 \$/acre-ft
Sprinkler Electric	38.7 kwh/acre-ft
Sprinkler Electric Cost	\$2.32 \$/acre-ft
Sprinkler Cost	\$7.32 \$/acre-ft

Alfalfa Establishment

Income	
Yield	0.0 Tons/Acre
Price per Unit	0.00 \$/Ton
Total Income	\$0.00 \$/acre

Irrigation Option Expenses		
Irrigation Depth	18	inches
Labor Hours for Surface Irrigation	0.900	hours/acre
Labor Cost for Surface Irrigation	\$8.42	\$/acre
Well Power and Maintenance	\$98.48	\$/acre
Sprinkler Power and Maintenance	\$10.98	\$/acre

Operating Expenses										
No.	Operation	Hours		Operating Costs (\$/acre) per operation					Times	Total Expenses
		Machine	Labor	Fuel/Rps	Labor	Custom	Materials	Total		
1	Rip	0.360	0.400	6.44	3.74			10.18	3.0	30.55
2	Disk	0.225	0.250	4.74	2.34			7.08	1.0	7.08
3	x Laser Level	0.450	0.500	7.83	4.68			12.51	1.0	12.51
4	x Make Borders	0.045	0.050	0.28	0.47			0.74	1.0	0.74
5	Plant	0.277	0.308	2.62	2.88		65.63	71.13	1.0	71.13
6	Effective Microorganisms						13.50	13.50	1.0	13.50
	Pickup Use 20 Mi/Acre	0.667		7.20				7.20		7.20
Total Operating Expenses (Surface Irrigation)										142.72
Total Operating Expenses (Sprinkler Irrigation) (Does not include rows marked with "x")										129.46

Net Profit	CAP Water		Groundwater	
	Surface	Sprinkler	Surface	Sprinkler
Irrigation Type				
Income	\$0.00	\$0.00	\$0.00	\$0.00
Operating Expenses	\$142.72	\$129.46	\$142.72	\$129.46
Irrigation Expenses	\$8.42	\$10.98	\$106.90	\$109.46
Total Operating and Irrigation	\$151.14	\$140.45	\$249.61	\$238.92
General and Office Overhead	5%	\$7.56	\$7.02	\$12.48
General Farm Maintenance	3%	\$4.53	\$4.21	\$7.49
Farm Management	10%	\$15.11	\$14.04	\$24.96
Consulting Services	1%	\$1.51	\$1.40	\$2.50
Net Profit per Acre		(\$179.85)	(\$167.13)	(\$297.04)
				(\$284.32)

Alfalfa Hay

Income	
Yield	9.0 Tons/Acre
Price per Unit	120.00 \$/Ton
Total Income	\$1,080.00 \$/acre

Irrigation Option Expenses		
Irrigation Depth	72	inches
Labor Hours for Surface Irrigation	3.600	hours/acre
Labor Cost for Surface Irrigation	\$33.68	\$/acre
Well Power and Maintenance	\$393.90	\$/acre
Sprinkler Power and Maintenance	\$43.93	\$/acre

Operating Expenses

No.	Operation	Hours		Operating Costs (\$/acre) per operation					Total Expenses	
		Machine	Labor	Fuel/Rps	Labor	Custom	Materials	Total		
1	Cutting	0.200	0.222	3.64	2.08			5.72	7.0	40.02
2	Raking	0.150	0.167	1.46	1.56			3.02	7.0	21.13
3	Baling	0.167	0.185	5.74	1.73		3.38	10.85	7.0	75.93
4	Load, Haul & Stack	0.064	0.071	6.99	0.66			7.66	7.0	53.59
5	Effective Microorganisms						11.25	11.25	7.0	78.75
6	Sales		2.000		18.71			18.71	1.0	18.71
	Pickup Use 40 Mi/Acre	1.333		14.40				14.40		14.40
Total Operating Expenses (Surface Irrigation)										302.53
Total Operating Expenses (Sprinkler Irrigation) (Does not include rows marked with "x")										302.53

Net Profit	CAP Water		Groundwater	
	Surface	Sprinkler	Surface	Sprinkler
Irrigation Type				
Income	\$1,080.00	\$1,080.00	\$1,080.00	\$1,080.00
Operating Expenses	\$302.53	\$302.53	\$302.53	\$302.53
Irrigation Expenses	\$33.68	\$43.93	\$427.58	\$437.83
Total Operating and Irrigation	\$336.21	\$346.47	\$730.12	\$740.37
General and Office Overhead	5%	\$16.81	\$17.32	\$36.51
General Farm Maintenance	3%	\$10.09	\$10.39	\$21.90
Farm Management	10%	\$33.62	\$34.65	\$73.01
Consulting Services	1%	\$3.36	\$3.46	\$7.30
Net Profit per Acre		\$679.91	\$667.70	\$211.16
Break Even Price	\$/Ton	44.45	45.81	96.54

Notes:

Pricing assumed that 100 lb bales sold for an average of \$6 per bale.

Traditional Squash

Income	
Yield	3000 Squash/Acre
Price per Unit	1.00 \$/Squash
Total Income	\$3,000.00 \$/acre

Irrigation Option Expenses		
Irrigation Depth	20	inches
Labor Hours for Surface Irrigation	1.000	hours/acre
Labor Cost for Surface Irrigation	\$9.36	\$/acre
Well Power and Maintenance	\$109.42	\$/acre
Sprinkler Power and Maintenance	\$12.20	\$/acre

Operating Expenses										
No.	Operation	Hours		Operating Costs (\$/acre) per operation					Total Expenses	
		Machine	Labor	Fuel/Rps	Labor	Custom	Materials	Total		Times
1	Renovator	0.150	0.167	2.27	1.56			3.83	1.0	3.83
2	Disk	0.230	0.256	1.85	2.39			4.24	3.0	12.72
3	x Laser Level	0.450	0.500	7.83	4.68			12.51	1.0	12.51
4	List	0.300	0.333	2.50	3.12			5.61	1.0	5.61
5	Prep Master	0.250	0.278	2.10	2.60			4.70	1.0	4.70
6	Plant	0.300	0.333	5.12	3.12			8.24	1.0	8.24
7	x Prepare Head End	0.045	0.050	0.23	0.47			0.69	3.0	2.08
8	x Disk Ends	0.023	0.025	0.16	0.23			0.40	3.0	1.19
9	Effective Microorganisms						11.25	11.25	4.0	45.00
10	Cultivate	0.400	0.444	2.26	4.15			6.41	2.0	12.83
11	Hand Weeding		4.000		37.42			37.42	2.0	74.84
12	Harvest, Load, Haul	5.000	10.000	97.61	93.55			191.16	1.0	191.16
13	Disk Residue	0.150	0.167	1.19	1.56			2.75	1.0	2.75
14	Sales		5.000		46.78			46.78	1.0	46.78
	Pickup Use 10 Mi/Acre	0.333		3.60				3.60		3.60
Total Operating Expenses (Surface Irrigation)										427.85
Total Operating Expenses (Sprinkler Irrigation) (Does not include rows marked with "x")										412.06

Net Profit	CAP Water		Groundwater	
	Surface	Sprinkler	Surface	Sprinkler
Irrigation Type				
Income	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00
Operating Expenses	\$427.85	\$412.06	\$427.85	\$412.06
Irrigation Expenses	\$9.36	\$12.20	\$118.77	\$121.62
Total Operating and Irrigation	\$437.20	\$424.27	\$546.62	\$533.68
General and Office Overhead	5%	\$21.86	\$21.21	\$27.33
General Farm Maintenance	3%	\$13.12	\$12.73	\$16.40
Farm Management	10%	\$43.72	\$42.43	\$54.66
Consulting Services	1%	\$4.37	\$4.24	\$5.47
Net Profit per Acre	\$2,479.73	\$2,495.12	\$2,349.52	\$2,364.91
Break Even Price	\$/Squash	0.17	0.17	0.22