

TABLE 1. Basic cost information for the Arch Hurley Conservancy District, Quay County, 2003.

Item			
<b>Labor Wage Rate:</b>			
Equipment Operators		\$/hour	7.55
General and Irrigators		\$/hour	6.75
<b>Purchased Inputs:</b>			
<b>Fertilizer</b>			
Nitrogen (N)		\$/pound	0.36
Phosphate (P205)		\$/pound	0.33
(16-4-12-12)		\$/pound	0.12
<b>Seed:</b>			
Alfalfa		\$/pound	3.00
Wheat		\$/pound	0.13
Grain Sorghum		\$/pound	1.20
Jose Wheatgrass		\$/pound	1.65
Wire		\$/pound	0.39
<b>Canal Water</b>			
Assessment		\$/acre	7.00
Water 1 - 18 inches		\$/acre foot	7.00
<b>Energy:</b>			
Diesel		\$/gallon	1.30
Gasoline		\$/gallon	1.35
LP Gas		\$/gallon	1.21
Electricity		\$/KwHr	6.13
Employee Liability Insurance		\$/1,000 wages	20.00
Employee Benefits		percent/wages	18.00%
Labor Downtime		percent	25.00%
<b>Financial Rates:</b>			
Operating Capital Interest Rate		percent	8.00%
Land Interest Rate		percent	7.00%
Equipment Interest Rate		percent	8.00%
Real Interest Rate		percent	4.00%
Land Taxes		96.00 /acre (full value)	0.84
Personal Property Tax Rate - NR - R		\$/1,000 (Assessed Value)	26.16 25.14
<b>Supervision Factors</b>			
Field Crop-Irrigation		\$/labor hour	1.00
Field Crop-Equipment & General		\$/labor hour	0.50
Management Rate		percent	7.00%

BUDGET AREA..... ARCH-HURLEY CONSERVANCY DISTRICT, QUAY COUNTY, 2003.  
 FARM SIZE ..... 640 ACRES  
 IRRIGATION TYPE..... FLOOD  
 NUMBER OF CROPS... 5

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	17.00 *	8.0	136.0
ALFALFA	100.00	24.0	2,400.0
WHEAT	127.50	16.0	2,040.0
APR	0.00		
FLEX IN GRAIN SORGHUM	22.50	16.0	360.0
GRAIN SORGHUM	120.00	16.0	1,920.0
APR	7.50		
FLEX IN GRAIN SORGHUM	22.50	16.0	360.0
BERMUDA PASTURE	100.00	18.0	1,800.0
JOSE WHEATGRASS ESTAB.	13.00 *	8.0	104.0
JOSE WHEATGRASS	100.00	24.0	2,400.0
ROADS, DITCHES, HOMESTEAD	40.00		
<b>TOTAL</b>	<b>640.00</b>		<b>11,520.0</b>
<b>ACRE FEET PER ACRE OF WATER RIGHTS</b>			<b>1.50</b>

\* DOUBLE-CROPPED

TABLE 1a. Overhead cost information for the Arch Hurley Conservancy District, Quay County, 2003.

ITEM	CROP ENTERPRISE		LIVESTOCK ENTERPRISE		TOTAL
Electricity (Domestic & Shop)	210.00	per month	2,520	252	2772
Telephone	110.00	per month	1,320	132	1452
Accounting & Legal			1610		1610
Misc. Supplies & Hand Tools			2220	222	2442
Vehicles	Crop	Livestock			
miles	20,600	10,300	@	0.365 per mile	7519
Insurance					
- general liability (non-employee)			1,635		1635
- fire/theft			1630		1630
Property Taxes					
- non-farm land			40		39.7632
- other than land & machinery			575		575
Building repairs and maintenance			1230	123	1353
Dues, fees, publications			360	60	420
Farmstead Equipment			160	16	176
<b>Total</b>			<b>20,819</b>	<b>4,565</b>	<b>25,383</b>
Total per planted acre			35.14		
Total per mature cow				18.11	
Total per animal unit				13.03	

TABLE 2a. Equipment summary for a 640 acre flood irrigated farm with above average management, Arch Hurley Conservancy District, Quay County, 2003.

EQUIPMENT		VARIABLE COSTS							FIXED COSTS		
ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	FUEL AND LUBRICANT	FUEL,LUBE REPAIR	PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HOUR	
TRACTOR 70 HP	255.965	1	6790	1229.86063	736.25773	4.8048	2.8764	705	92.214	3.114543	
TRACTOR 165 HP	353.37	1	31475	4148.66981	2367.3528	11.7403	6.69936	4652.33333	304.2626	14.026646	
TRUCK 2 TON	55.67	1	22000	481.629005	857.318	8.6515	15.4	4400	191.84	82.483205	
COMBINE 95 HP	55.67	1	1200	416.85696	97.70085	7.488	1.755	337.5	58.86	7.1198132	
GRAIN HEAD 18 FT	55.67	1	14410		139.55912		2.5069	1519.33333	99.3644	29.076661	
SWATHER 14 FT	64	1	4300	311.5008	204.16	4.8672	3.19	1450	126.44	24.631875	
BALER, PTO 2-WIRE	84	1	1500		109.956		1.309	385	33.572	4.983	
BALE WAGON, PTO	80	1	1850		332.8		4.16	800	69.76	10.872	
PLANTER 6-ROW	28.05	1	4250		169.28175		6.035	850	37.06	31.624242	
CHISEL 9-PT	49.575	1	1350		42.8328		0.864	180	11.772	3.8683207	
ROLLING CULT 6-ROW	21.45	1	3000		50.193		2.34	400	26.16	19.867599	
FLOAT 12 FT	62.795	1	500		9.04248		0.144	53.3333333	3.488	0.9048703	
DISC 14 FT	93.29	1	3000		167.922		1.8	400	26.16	4.5681209	
DRILL 13 FT	29.79	1	2150		90.94887		3.053	430	18.748	15.063713	
HARROW 21 FT	46.55	1	450		5.44635		0.117	60	3.924	1.3732331	
LISTER 6-ROW	39.66	1	2150		57.98292		1.462	286.666667	18.748	7.7008237	
SPRAYER (MTD) 4-ROW	28.05	1	1400		55.7634		1.988	186.666667	12.208	7.0900059	
ROD WEEDER 6-ROW	13.2	1	625		7.095		0.5375	83.3333333	5.45	6.7260101	
DITCHER	31.525	1	1250		7.88125		0.25	166.666667	10.9	5.6325667	
FERT SPREADER	31.525	1	2300		91.35945		2.898	306.666667	20.056	10.363923	
			105,950	6,589	5,601			17,653	1,171		

Table 3a. Livestock Production Parameters

NUMBER OF COWS	252
COWS PER BULL	30
NUMBER OF HORSES	1
REPLACEMENT RATE (%)	0.1
CALF DEATH LOSS (%)	0.03
YEARLING DEATH LOSS (%)	0.0125
COW DEATH LOSS (%)	0.01
BULL DEATH LOSS (%)	0
CALF CROP (%)	0.925
PRODUCTIVE LIFE OF BULLS (Y)	5
PERCENT SOLD AS YEARLINGS:	
HEIFERS	1
STEERS	1

Table 3b. Forage Sources for Livestock

	ACRES	AUMS/ACRE	GRAZING MONTHS	AU/MONTH	AUMS PROVIDED
JOSE WHEATGRASS	100	14	7	200	1400
BERMUDA PASTURE	100	10	4	250	1000
ALFALFA AFTERMATH	100	4	3	133.33333	400
WHEAT	128	4	4.5	113.77778	512
ASCS DIVERTED	7.5	8.3	6.5	9.5769231	62.25
GRAIN SORGHUM	165	4	5	132	660
ASED HAY		69 ton		14.375	172.5
TOTAL	600.5			853.06303	4206.75

Value of Land, Buildings and Improvements .....	0
Machinery and Equipment .....	0
Cattle .....	0
Appreciation/Depreciation Rate (%)	0

TABLE 4. Alfalfa establishment, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
Planting dates: August 1 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS		TOTAL			
<u>PURCHASED INPUTS</u>								
SEED	2.80	16.00 LBS	44.80		44.80			
OAT SEED	0.23	40.00 LBS	9.20		9.20			
NITROGEN	0.29	30.00 LBS	8.70		8.70			
PHOSPHATE (P205)	0.20	60.00 LBS	12.00		12.00			
CANAL WATER	6.00	8.00 AC. IN.	4.00		4.00			
SUBTOTAL			78.70		78.70			
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		1.13	2.03	1.13	2.68	6.98
DISC	145 HP	0.14 HR		1.06	1.90	1.19	2.60	6.74
FLOAT	145 HP	0.19 HR		1.43	2.57	1.30	2.83	8.14
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
LISTER	145 HP	0.12 HR		0.91	1.63	0.98	2.60	6.12
DRILL	70 HP	0.18 HR		1.36	1.00	1.07	3.27	6.69
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIG ATE (2X)		1.20 HR		8.10				8.10
SUBTOTAL		2.08 HR		14.74	9.68	6.12	15.10	45.64
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.21 HR		1.57				1.57
EMPLOYEE BENEFITS				2.65				2.65
INSURANCE			0.29					0.29
SUPERVISION AND MANAGEMENT				10.32				10.32
SUBTOTAL		0.21 HR	0.29	14.54				14.83
TOTAL OPERATING EXPENSES		2.29 HR	78.99	29.28	9.68	6.12	15.10	139.17

TABLE 5. Alfalfa hay, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
 Harvesting dates: May 25 - October 15      Grazing dates: October 15 - December 15

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
ALFALFA HAY	130.00	3.00 TONS (STACKED)						390.00
GRAZING	8.00	4.00 AUM						32.00
TOTAL								422.00
<b>PURCHASED INPUTS</b>								
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
PHOSPHATE (P205)	0.20	60.00 LBS	12.00					12.00
WIRE	0.38	25.71 LBS	9.83					9.83
ESTABLISHMENT: Principal		6.00 YEARS					23.20	23.20
: Interest							4.95	4.95
CANAL WATER: Assessment	6.00	1.00 ACRE	6.00					6.00
Water	6.00	24.00 AC. IN.	12.00					12.00
MANURE CREDIT	1.00	4.00 AUM	4.00					4.00
SUBTOTAL			43.83				28.15	71.98
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIGATE (4X)		2.00 HR		13.50				13.50
SUBTOTAL		2.20 HR		15.01	1.11	0.74	1.56	18.42
<b>HARVEST OPERATIONS</b>								
SWATHER (4X)	14 FT SP	0.64 HR		4.83	3.59	2.04	15.74	26.21
BALER (4X)	70 HP	0.84 HR		6.34	4.66	3.52	6.79	21.30
BALE WAGON, PTO (4X)	145 HP	0.80 HR		6.04	10.84	8.69	19.89	45.46
SUBTOTAL		2.28 HR	0.00	17.21	19.09	14.24	42.42	92.97
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.41 HR		3.08				3.08
EMPLOYEE BENEFITS				5.80				5.80
INSURANCE			0.64					0.64
LAND TAXES							0.82	0.82
SUPERVISION AND MANAGEMENT				32.36				32.36
OTHER EXPENSES				35.82				35.82
SUBTOTAL		0.41 HR	36.47	41.23			0.82	78.52
TOTAL OPERATING EXPENSES		4.89 HR	80.30	73.46	20.20	14.99	72.95	261.89
NET OPERATING PROFIT								160.11
INTEREST ON OPERATING CAPITAL	(	25.16	@	0.07				1.64
INTEREST ON EQUIPMENT INVESTMENT								25.48
RETURN TO LAND AND RISK								132.99
<b>BUDGET SUMMARY</b>								
GROSS RETURN				422.00				
VARIABLE OPERATING EXPENSES	115.49							
RETURN OVER VARIABLE EXPENSES				306.51	(GROSS MARGIN)			
FIXED EXPENSES	72.95							
NET FARM INCOME				233.56	(RETURN TO CAPITAL, LABOR, LAND & RISK)			
LABOR AND MANAGEMENT COST	73.46							
NET OPERATING PROFIT				160.11	(RETURN TO CAPITAL, LAND & RISK)			
CAPITAL COSTS	27.12							
RETURN TO LAND AND RISK				132.99				

TABLE 6. Wheat, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
 Planting dates: August 15 - September 15  
 Harvesting dates: June 15 - July 10

Grazing dates: November 1 - March 15

ITEM	PRICE	YIELD	BASE					TOTAL
<b>GROSS RETURNS</b>								
WHEAT	3.75	25.00 BUSHEL						93.75
DIRECT PAYMENT	0.52	25.00 BUSHEL	0.85					11.05
COUNTER CYCLICAL PAYMENT	0.00							0.00
GRAZING	12.00	4.00 AUM						48.00
TOTAL								152.80
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	0.18	60.00 LBS	10.80					10.80
NITROGEN (N)	0.29	80.00 LBS	23.20					23.20
PHOSPHATE (P205)	0.20	20.00 LBS	4.00					4.00
HERBICIDE	15.07	1.00 ACRE	15.07					15.07
CANAL WATER: Assessment	6.00	1.00 ACRE	6.00					6.00
Water	6.00	16.00 AC. IN.	8.00					8.00
MANURE CREDIT	1.00	4.00 AUM	4.00					4.00
CROP INSURANCE	0.39		0.39					0.39
SUBTOTAL			71.46					71.46
<b>PREHARVEST OPERATIONS</b>								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		1.13	2.03	1.13	2.68	6.98
DISC (2X)	145 HP	0.28 HR		2.11	3.79	2.38	5.20	13.49
FLOAT	145 HP	0.19 HR		1.43	2.57	1.30	2.83	8.14
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
PRE-IRRIGATE		0.75 HR		5.06				5.06
LISTER	145 HP	0.12 HR		0.91	1.63	0.98	2.60	6.12
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06
DRILL	70 HP	0.18 HR		1.36	1.00	1.07	3.27	6.69
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIGATE (3X)		1.50 HR		10.13				10.13
SUBTOTAL		3.37 HR	0.00	23.64	12.13	7.61	18.15	61.53
<b>HARVEST OPERATIONS</b>								
COMBINE	18 FT	0.19 HR	0.00	1.43	1.64	0.81	6.87	10.75
HAUL	2 TON	0.19 HR	0.00	1.43	1.90	2.93	15.66	21.92
SUBTOTAL		0.38 HR	0.00	2.87	3.54	3.74	22.53	32.67
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.36 HR		2.74				2.74
EMPLOYEE BENEFITS				4.77				4.77
INSURANCE			0.53					0.53
LAND TAXES							0.82	0.82
SUPERVISION AND MANAGEMENT				12.92				12.92
OTHER EXPENSES			35.82					35.82
SUBTOTAL		0.36 HR	36.35	20.43			0.82	57.61
TOTAL OPERATING EXPENSES		4.11 HR	107.81	46.94	15.67	11.34	41.49	223.26
NET OPERATING PROFIT								-70.46
INTEREST ON OPERATING CAPITAL	(	41.27 @	0.07 )					2.68
INTEREST ON EQUIPMENT INVESTMENT								17.30
ASCS ACR (SET-ASIDE)	(	0.10 @	37.45 )					3.75
RETURN TO LAND AND RISK								-94.19

BUDGET SUMMARY

GROSS RETURN		152.80	
VARIABLE OPERATING EXPENSES	134.82		
RETURN OVER VARIABLE EXPENSES		17.98	(GROSS MARGIN)
FIXED EXPENSES	41.49		
NET FARM INCOME		-23.52	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	46.94		
NET OPERATING PROFIT		-70.46	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	23.73		
RETURN TO LAND AND RISK		-94.19	

TABLE 7. Grain sorghum, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
 Planting dates: May 15 - July 1  
 Harvesting dates: October 15 - December 15

Grazing dates: November 1 - March 30

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
GRAIN SORGHUM	4.03	27.00	CWT					108.81
DIRECT PAYMENT	0.63	27.00	CWT					16.88
COUNTER CYCLICAL PAYMENT	0.00	0.00	CWT					0.00
GRAZING	8.00	4.00	AUM					32.00
<b>TOTAL</b>								<b>157.69</b>
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	1.30	7.00	LBS	9.10				9.10
NITROGEN (N)	0.29	80.00	LBS	23.20				23.20
PHOSPHATE (P205)	0.20	20.00	LBS	4.00				4.00
HERBICIDE	15.97	1.00	ACRE	15.97				15.97
CANAL WATER: Assessment	6.00	1.00	ACRE	6.00				6.00
Water	6.00	16.00	AC. IN.	8.00				8.00
MANURE CREDIT	1.00	4.00	AUM	4.00				4.00
CROP INSURANCE	0.30			0.30				0.30
<b>SUBTOTAL</b>				<b>70.58</b>				<b>70.58</b>
<b>PREHARVEST OPERATIONS</b>								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		1.13	2.03	1.13	2.68	6.98
DISC	145 HP	0.14 HR		1.06	1.90	1.19	2.60	6.74
FLOAT	145 HP	0.19 HR		1.43	2.57	1.30	2.83	8.14
DISC & SPRAY	145 HP	0.17 HR		1.28	2.30	1.78	4.36	9.73
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
LISTER	145 HP	0.12 HR		0.91	1.63	0.98	2.60	6.12
PRE-IRRIGATE		0.75 HR		5.06				5.06
ROD WEED	70 HP	0.08 HR		0.60	0.44	0.27	0.79	2.11
PLANTER	145 HP	0.17 HR		1.28	2.30	2.16	7.75	13.50
ROLLING CULT	70 HP	0.13 HR		0.98	0.72	0.68	2.98	5.36
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIGATE (2X)		1.00 HR		6.75				6.75
<b>SUBTOTAL</b>		<b>3.00 HR</b>	<b>0.00</b>	<b>21.25</b>	<b>14.45</b>	<b>9.95</b>	<b>27.71</b>	<b>73.36</b>
<b>HARVEST OPERATIONS</b>								
COMBINE	18 FT	0.19 HR		1.43	1.64	0.81	6.87	10.75
HAUL	2 TON	0.19 HR		1.43	1.90	2.93	15.66	21.92
<b>SUBTOTAL</b>		<b>0.38 HR</b>	<b>0.00</b>	<b>2.87</b>	<b>3.54</b>	<b>3.74</b>	<b>22.53</b>	<b>32.67</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.40 HR		2.98				2.98
EMPLOYEE BENEFITS				4.34				4.34
INSURANCE			0.48					0.48
LAND TAXES							0.82	0.82
SUPERVISION AND MANAGEMENT				13.58				13.58
OTHER EXPENSES				35.82				35.82
<b>SUBTOTAL</b>		<b>0.40 HR</b>	<b>36.31</b>	<b>20.90</b>			<b>0.82</b>	<b>58.03</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>3.78 HR</b>	<b>106.88</b>	<b>45.02</b>	<b>17.99</b>	<b>13.68</b>	<b>51.06</b>	<b>234.64</b>
<b>NET OPERATING PROFIT</b>								<b>-76.96</b>
INTEREST ON OPERATING CAPITAL	(	41.99 @	0.07 )					2.73
INTEREST ON EQUIPMENT INVESTMENT								21.21
ASCS ACR (SET-ASIDE)	(	0.10 @	37.45 )					3.75
<b>RETURN TO LAND AND RISK</b>								<b>-104.64</b>
<b>BUDGET SUMMARY</b>								
GROSS RETURN			157.69					
VARIABLE OPERATING EXPENSES	138.56							
RETURN OVER VARIABLE EXPENSES		19.13	(GROSS MARGIN)					
FIXED EXPENSES	51.06							
NET FARM INCOME		-31.94	(RETURN TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	45.02							
NET OPERATING PROFIT		-76.96	(RETURN TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	27.68							
<b>RETURN TO LAND AND RISK</b>		<b>-104.64</b>						

TABLE 8. Bermudagrass, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
Harvesting dates: June 1 - October 1

ITEM	PRICE	YIELD						TOTAL	
<b>GROSS RETURNS</b>									
BERMUDAGRASS	14.00	10.00 AUM						140.00	
TOTAL							140.00		
<b>PURCHASED INPUTS</b>									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
FERTILIZER (16-4-12-12)	0.12	235.00 LBS	28.20					28.20	
CANAL WATER: Assessment	6.00	1.00 ACRE	6.00					6.00	
Water	6.00	18.00 AC. IN.	9.00					9.00	
MANURE CREDIT	1.00	10.00 AUM	10.00					10.00	
SUBTOTAL							53.20		
<b>PREHARVEST OPERATIONS</b>									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL	
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06	
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62	
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25	
IRRIGATE (3X)		1.50 HR		10.13				10.13	
SUBTOTAL			1.70 HR	11.64	1.11	0.74	1.56	15.05	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.05 HR		0.38				0.38	
EMPLOYEE BENEFITS				2.09				2.09	
INSURANCE			0.23					0.23	
LAND TAXES							0.82	0.82	
SUPERVISION AND MANAGEMENT				11.38				11.38	
OTHER EXPENSES			35.82					35.82	
			0.05 HR	36.06	13.85		0.82	50.72	
TOTAL OPERATING EXPENSES			1.75 HR	89.26	25.48	1.11	0.74	2.38	118.97
NET OPERATING PROFIT								21.03	
INTEREST ON OPERATING CAPITAL	(	27.06	@	0.07				1.76	
INTEREST ON EQUIPMENT INVESTMENT								0.97	
RETURN TO LAND AND RISK								18.30	
<b>BUDGET SUMMARY</b>									
GROSS RETURN		140.00							
VARIABLE OPERATING EXPENSES	91.11								
RETURN OVER VARIABLE EXPENSES		48.89	(GROSS MARGIN)						
FIXED EXPENSES	2.38								
NET FARM INCOME		46.51	(RETURN TO CAPITAL, LABOR, LAND & RISK)						
LABOR AND MANAGEMENT COST	25.48								
NET OPERATING PROFIT		21.03	(RETURN TO CAPITAL, LAND & RISK)						
CAPITAL COSTS	2.73								
RETURN TO LAND AND RISK							18.30		

TABLE 9. Jose Wheatgrass establishment, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS		TOTAL			
<u>PURCHASED INPUTS</u>								
SEED	2.50	15.00 LBS	37.50		37.50			
NITROGEN (N)	0.29	30.00 LBS	8.70		8.70			
PHOSPHATE (P205)	0.20	60.00 LBS	12.00		12.00			
CANAL WATER	6.00	8.00 AC. IN.	4.00		4.00			
SUBTOTAL			62.20		62.20			
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		1.13	2.03	1.13	2.68	6.98
DISC	145 HP	0.14 HR		1.06	1.90	1.19	2.60	6.74
FLOAT	145 HP	0.19 HR		1.43	2.57	1.30	2.83	8.14
LISTER	145 HP	0.12 HR		0.91	1.63	0.98	2.60	6.12
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06
DRILL	70 HP	0.18 HR		1.36	1.00	1.07	3.27	6.69
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIGATE (2X)		1.00 HR		6.75				6.75
SUBTOTAL		1.98 HR		14.15	10.23	6.42	15.55	46.35
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.23 HR		1.76				1.76
EMPLOYEE BENEFITS				2.55				2.55
INSURANCE			0.28					0.28
SUPERVISION AND MANAGEMENT				9.06				9.06
SUBTOTAL		0.23 HR	0.28	13.37				13.65
TOTAL OPERATING EXPENSES		2.21 HR	62.48	27.51	10.23	6.42	15.55	122.19

TABLE 10. Jose Wheatgrass, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
Harvesting dates: March 1 - June 30 & September 1 - December 1

ITEM	PRICE	YIELD						TOTAL
<b>GROSS RETURNS</b>								
JOSE WHEATGRASS	12.00	14.00 AUM OF GRAZING						168.00
<b>TOTAL</b>							<u>168.00</u>	
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
FERTILIZER (16-4-12-12)	0.12	235.00 LBS	28.20					28.20
ESTABLISHMENT: Principal		15.00 YEARS					8.15	8.15
: Interest							4.23	4.23
CANAL WATER: Assessment	6.00	1.00 ACRE	6.00					6.00
Water	6.00	24.00 AC. IN.	12.00					12.00
MANURE CREDIT	1.00	14.00 AUM	14.00					14.00
<b>SUBTOTAL</b>			<u>60.20</u>				<u>12.38</u>	<u>72.58</u>
<b>PREHARVEST OPERATIONS</b>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06
FERT SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
DITCHER	70 HP	0.05 HR		0.38	0.28	0.16	0.44	1.25
IRRIGATE (4X)		2.00 HR		13.50				13.50
<b>SUBTOTAL</b>		<u>2.20 HR</u>		<u>15.01</u>	<u>1.11</u>	<u>0.74</u>	<u>1.56</u>	<u>18.42</u>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.04 HR		0.28				0.28
EMPLOYEE BENEFITS				2.70				2.70
INSURANCE			0.30					0.30
LAND TAXES							0.82	0.82
SUPERVISION AND MANAGEMENT				13.84				13.84
OTHER EXPENSES				35.82				35.82
<b>SUBTOTAL</b>		<u>0.04 HR</u>	<u>36.12</u>	<u>16.82</u>			<u>0.82</u>	<u>53.77</u>
<b>TOTAL OPERATING EXPENSES</b>		<u>2.24 HR</u>	<u>96.32</u>	<u>31.83</u>	<u>1.11</u>	<u>0.74</u>	<u>14.76</u>	<u>144.76</u>
<b>NET OPERATING PROFIT</b>								23.24
INTEREST ON OPERATING CAPITAL	(	30.56 @	0.07 )					1.99
INTEREST ON EQUIPMENT INVESTMENT								0.97
<b>RETURN TO LAND AND RISK</b>								<u>20.28</u>

**BUDGET SUMMARY**

GROSS RETURN		168.00	
VARIABLE OPERATING EXPENSES	98.18		
RETURN OVER VARIABLE EXPENSES		69.82	(GROSS MARGIN)
FIXED EXPENSES	14.76		
NET FARM INCOME		55.07	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	31.83		
NET OPERATING PROFIT		23.24	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	2.95		
RETURN TO LAND AND RISK		<u>20.28</u>	

TABLE 11. ASCS diverted land, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2002  
 Planting dates: August 15 - September 15  
 Harvesting dates: (with ASCS) November 1 - April 15  
 Harvesting dates: (without ASCS) November 1 - May 30

ITEM	PRICE	YIELD		TOTAL				
<b>GROSS RETURNS</b>								
ASCS DIVERTED (WHEAT)	12.00	8.30 AUM		99.62				
<b>TOTAL</b>				<b>99.62</b>				
<b>PURCHASED INPUTS</b>								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	TOTAL				
SEED	0.18	60.00 LBS	10.80	10.80				
NITROGEN (N)	0.29	80.00 LBS	23.20	23.20				
PHOSPHATE (P205)	0.20	20.00 LBS	4.00	4.00				
CANAL WATER: Assessment	6.00	1.00 ACRE	6.00	6.00				
Water	6.00	8.00 AC. IN.	4.00	4.00				
MANURE	1.00	8.30 AUM	8.30	8.30				
<b>SUBTOTAL</b>			<b>56.30</b>	<b>56.30</b>				
<b>PREHARVEST OPERATIONS</b>								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	126 HP	0.15 HR		1.13	2.03	1.13	2.68	6.98
DISC (2X)	126 HP	0.28 HR		2.11	3.79	2.38	5.20	13.49
FLOAT	126 HP	0.19 HR		1.43	2.57	1.30	2.83	8.14
FERT. SPREADER	70 HP	0.05 HR		0.38	0.28	0.29	0.67	1.62
PRE-IRRIGATE		0.75 HR		5.06				5.06
LISTER	126 HP	0.12 HR		0.91	1.63	0.98	2.60	6.12
HARROW	70 HP	0.10 HR		0.76	0.55	0.30	0.45	2.06
DRILL	70 HP	0.18 HR		1.36	1.00	1.07	3.27	6.69
DITCHER	70 HP	0.05 HR		0.38	0.83	0.47	1.31	2.99
IRRIGATE (1X)		0.50 HR		3.38				3.38
<b>SUBTOTAL</b>		<b>2.37 HR</b>	<b>0.00</b>	<b>16.89</b>	<b>12.69</b>	<b>7.92</b>	<b>19.02</b>	<b>56.52</b>
<b>OVERHEAD EXPENSES</b>								
DOWNTIME		0.27 HR		2.02				2.02
EMPLOYEE BENEFITS				3.04				3.04
INSURANCE			0.34					0.34
LAND TAXES							0.82	0.82
SUPERVISION AND MANAGEMENT				8.93				8.93
OTHER EXPENSES								0.00
<b>SUBTOTAL</b>		<b>0.27 HR</b>	<b>0.34</b>	<b>13.99</b>			<b>0.82</b>	<b>15.15</b>
<b>TOTAL OPERATING EXPENSES</b>		<b>2.64 HR</b>	<b>56.64</b>	<b>30.89</b>	<b>12.69</b>	<b>7.92</b>	<b>19.84</b>	<b>127.97</b>
<b>NET OPERATING PROFIT</b>								<b>-28.35</b>
INTEREST ON OPERATING CAPITAL	(	33.30	@	0.07)				2.16
INTEREST ON EQUIPMENT INVESTMENT								6.94
<b>RETURN TO LAND AND RISK</b>								<b>-37.45</b>
<b>BUDGET SUMMARY</b>								
GROSS RETURN				99.62				
VARIABLE OPERATING EXPENSES	77.24							
RETURN OVER VARIABLE EXPENSES		22.37	(GROSS MARGIN)					
FIXED EXPENSES	19.84							
NET FARM INCOME		2.53	(RETURN TO CAPITAL, LABOR, LAND & RISK)					
LABOR AND MANAGEMENT COST	30.89							
NET OPERATING PROFIT		-28.35	(RETURN TO CAPITAL, LAND & RISK)					
CAPITAL COSTS	9.10							
RETURN TO LAND AND RISK		-37.45						

Table 12. Livestock Enterprise, cost and returns for a 640 acre farm with livestock as the primary enterprise, with above average management, Arch Hurley Conservancy District, Quay County, 2002

GROSS RETURNS			Sale Weight (CWT)	Total (\$)	Guideline Value (\$/Cow)	Guideline Value (\$/AU)
NUMBER		\$/CWT				
97	YEARLING HEIFERS	92.00	7.35	65,591.40	260.28	187.26
122	YEARLING STEERS	102.00	7.50	93,330.00	370.36	266.45
0	HEIFER CALVES	104.00	4.25	0.00	0.00	0.00
0	STEER CALVES	112.00	4.50	0.00	0.00	0.00
2	BULLS	41.00	16.50	1,353.00	5.37	3.86
23	CULL COWS	38.00	10.00	8,740.00	34.68	24.95
4,188	MANURE	0.13	8.00	4,188.22	16.62	11.96
TOTAL				173,202.62	687.31	494.49

NUMBER	PURCHASED INPUTS	Unit	\$/Unit	Total	Guideline Value (\$/Cow)	Guideline Value (\$/AU)
FORAGE:						
1400	JOSE WHEATGRASS	AUM	12.00	16,800.00	66.67	47.96
1000	BERMUDAGRASS	AUM	10.00	10,000.00	39.68	28.55
660	GRAIN SORGHUM	AUM	8.00	5,280.00	20.95	15.07
510	WHEAT	AUM	12.00	6,120.00	24.29	17.47
62	ASCS DIVERSION	AUM	12.00	747.12	2.96	2.13
400	ALFALFA AFTERMATH	AUM	8.00	3,200.00	12.70	9.14
SUBTOTAL				42,147	167.25	120.33

LABOR, FEED, LIVESTOCK:		Unit	\$/Unit	Total	(\$/Cow)	(\$/AU)
5	PROTEIN SUPPLEMENT	TON	250	1,250	4.96	3.57
2	SALT & MINERALS	TON	210.00	420.00	1.67	1.20
69	HAY	TON	90.00	6,210.00	24.64	17.73
0	GRAIN	TON	200.00	0.00	0.00	0.00
0	GRAIN CUBES	TON	200.00	0.00	0.00	0.00
	FUEL AND REPAIRS	ANNUAL		0.00	0.00	0.00
	VETERINARY AND MEDICINE	ANNUAL		1,953.00	7.75	5.58
2	BULLS PURCHASED	HEAD	1,300.00	2,600.00	10.32	7.42
	LIVESTOCK TAXES	ANNUAL		1,675.28	6.65	4.78
	MAINTENANCE	ANNUAL		0.00	0.00	0.00
277	PREGNANCY TEST	HEAD	2.00	554.00	2.00	1.58
395	LABOR	HOUR	5.00	1,975.00	7.84	5.64
244	BEEF CHECKOFF PROGRAM	HEAD	1.00	244.00	0.97	0.70
	MISCELLANEOUS	ANNUAL		0.00	0.00	0.00
SUBTOTAL				16,881	66.79	48.20

OVERHEAD EXPENSES						
	EMPLOYEE BENEFITS			0.00	0.00	0.00
	INSURANCE			0.00	0.00	0.00
	DEPRECIATION			1,440.00	5.71	4.11
	SUPERVISION AND MANAGEMENT			8,527.79	33.84	24.35
	OTHER EXPENSES			4,587.00	18.20	13.10
SUBTOTAL				14,555	57.76	41.55

TOTAL OPERATING EXPENSES 73,583.18 292.00 210.08

NET OPERATING PROFIT 99,619 395.32 284.41

CAPITAL COST						
	INTEREST ON OPERATING CAPITAL			1,674.66	6.65	4.78
	INTEREST ON MACHINERY AND IMPROVEMENTS			2,242.00	8.90	6.40
	INTEREST ON LIVESTOCK			29,486.80	117.01	84.18

TOTAL CAPITAL COST 33,403.46 132.55 95.37

RETURN TO RISK 66,216 262.76 189.04

BUDGET SUMMARY

GROSS RETURN		173,203
VARIABLE OPERATING EXPENSES	59,028.40	
RETURN OVER VARIABLE EXPENSES		114,174
FIXED EXPENSES	6,027	
NET FARM INCOME		108,147
LABOR AND MANAGEMENT COST	8,528	
NET OPERATING PROFIT		99,619
CAPITAL COST	33,403.46	
RETURN TO LAND AND RISK		66,216

Table 13. Summary of per acre costs and returns for an above-average managed farm, Arch Hurley  
 Conservancy District, Quay County, 2002

	ASCD DIVERTED	ALFALFA EST.	ALFALFA HAY	WHEAT	GRAIN SORGHUM	BERMUDA PASTURE	JOSE EST.	WHEATGRASS PASTURE
	-----FLOOD-----							
PRIMARY YIELD	8.30		3.00	25.00	27.00	10.00		14.00
PRIMARY PRICE	12.00		130.00	3.75	4.03	14.00		12.00
GOVERNMENT PAYMENTS	0.00		0.00	11.05	16.88	0.00		0.00
SECOND INCOME	0.00		32.00	48.00	32.00	0.00		0.00
GROSS RETURN	99.62		422.00	152.80	157.69	140.00		168.00
CASH OPERATING EXPENSES								
SEED	10.80	54.00		10.80	9.10		37.50	
FERTILIZER	35.50	20.70	16.00	31.20	31.20	38.20	20.70	42.20
CHEMICALS				15.07	15.97			
CROP INSURANCE				0.39	0.30			
OTHER PURCHASED INPUTS			9.83					
CANAL WATER	10.00	4.00	18.00	14.00	14.00	15.00	4.00	18.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	12.69	9.68	20.20	15.67	17.99	1.11	10.23	1.11
FUEL-IRRIGATION								
REPAIRS	7.92	6.12	14.99	11.34	13.68	0.74	6.42	0.74
CUSTOM CHARGES			0.00	0.00	0.00			
LAND TAXES			0.82	0.82	0.82	0.82		0.82
OTHER EXPENSES	0.34	0.29	36.47	36.35	36.31	36.06	0.28	36.12
TOTAL CASH EXPENSES	77.24	94.79	116.31	135.64	139.38	91.93	79.13	99.00
RETURN OVER CASH EXPENSES	22.37	-94.79	305.69	17.16	18.31	48.07	-79.13	69.00
FIXED EXPENSES	19.84	15.10	72.13	40.67	50.24	1.56	15.55	13.94
TOTAL EXPENSES	97.08	109.89	188.44	176.32	189.62	93.49	94.68	112.93
NET FARM INCOME	2.53	-109.89	233.56	-23.52	-31.94	46.51	-94.68	55.07
LABOR AND MANAGEMENT COSTS	30.89	29.28	73.46	46.94	45.02	25.48	27.51	31.83
NET OPERATING PROFIT	-28.35	-139.17	160.11	-70.46	-76.96	21.03	-122.19	23.24
CAPITAL COSTS								
INTEREST ON OPERATING CAPITAL	2.16		1.64	2.68	2.73	1.76		1.99
INTEREST ON EQUIPMENT INVESTMENT	6.94		25.48	17.30	21.21	0.97		0.97
ASCS ACR (SET ASIDE)				3.75	3.75			
TOTAL CAPITAL COSTS	9.10	0.00	27.12	23.73	27.68	2.73	0.00	2.95
RETURN TO LAND AND RISK	-37.45	-139.17	132.99	-94.19	-104.64	18.30	-122.19	20.28

Table 14. Whole Farm Summary, Arch Hurley Conservancy District,  
Quay County, 2003.

GROSS RETURNS			
ALFALFA HAY	100.00 ACRES		
CROP		36,240.00	
GRAZING		3,200	
WHEAT	128.00 ACRES		
CROP		12,000.00	
GRAZING		6,144.00	
DIRECT PAYMENT		1,414.40	
COUNTER CYCLICAL PAYMENT		0.00	
GRAIN SORGHUM	165.00 ACRES		
CROP		17,953.65	
GRAZING		5,280.00	
DIRECT PAYMENT		2,025.00	
COUNTER CYCLICAL PAYMENT		0.00	
BERMUDAGRASS	100.00 ACRES		
CROP		14,000.00	
JOSE WHEATGRASS	100.00 ACRES		
CROP		16,800.00	
COUNTER CYCLICA	7.50 ACRES	747	
LIVESTOCK		173,202.62	
GROSS RETURN			<u>289,007</u>
CASH OPERATING EXPENSES			
FORAGE		42,147	
FEED AND LIVESTOCK		14,906	
SEED		4,370.40	
FERTILIZER		19,668.86	
CHEMICALS		4,564.17	
CROP INSURANCE		100.00	
OTHER PURCHASED INPUTS		983.41	
CANAL WATER		9,397.00	
FUEL, OIL & LUBRICANTS-EQUIPMENT		7,608.37	
FUEL-IRRIGATION		0.00	
REPAIRS		5,604.08	
CUSTOM CHARGES		0.00	
LAND TAXES		487.11	
OTHER EXPENSES		26,106.86	
TOTAL CASH EXPENSES			<u>135,944</u>
RETURN OVER CASH EXPENSES			153,063.13
FIXED EXPENSES		21,171.42	
TOTAL EXPENSES			157,115.08
NET FARM INCOME			131,891.71
LABOR AND MANAGEMENT COSTS		38,103.76	
NET OPERATING PROFIT			93,787.95
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		1,348.08	
INTEREST ON EQUIPMENT INVESTMENT		8,507.18	
INTEREST ON LIVESTOCK ENTERPRISE		33,403.46	
TOTAL CAPITAL COSTS			<u>43,259</u>
RETURN TO LAND AND RISK			<u>50,529.22</u>

LAND VALUE	TOTAL INVESTMENT	RETURN TO RISK*	RETURN ON INVESTMENT**
200.00 /ACRE	558,092.33	45,409.22	0.17
300.00 /ACRE	622,092.33	42,849.22	0.15
400.00 /ACRE	686,092.33	40,289.22	0.14
500.00 /ACRE	750,092.33	37,729.22	0.13
600.00 /ACRE	814,092.33	35,169.22	0.12
700.00 /ACRE	878,092.33	32,609.22	0.11
800.00 /ACRE	942,092.33	30,049.22	0.10
900.00 /ACRE	#####	27,489.22	0.09
1,000.00 /ACRE	#####	24,929.22	0.09
1,100.00 /ACRE	#####	22,369.22	0.08
1,200.00 /ACRE	#####	19,809.22	0.08

\* RETURN TO LAND AND RISK MINUS (INTEREST RATE TIMES LAND VALUE TIMES ACREAGE)

\*\* NET OPERATING PROFIT DIVIDED BY (MACHINERY AND EQUIPMENT VALUE PLUS LIVESTOCK AND LIVESTOCK RESOURCES PLUS LAND VALUE)