

TABLE 1. Acreage Summary, Quay County, Projected 2006.

BUDGET AREA.....	ARCH HURLEY CONSERVANCY DISTRICT, QUAY COUNTY		
FARM SIZE.....	600 ACRES		
IRRIGATION TYPE.....	SPRINKLER		
NUMBER OF CROPS....	3		

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	25.00 *	6	150
ALFALFA	200.00	24	4,800
GRAIN SORGHUM	170.00	18	3,060
ARP	0.00		
FLEX IN GRAIN SORGHUM	30.00	12	360
WHEAT	170.00	12	2,040
ARP	0.00		
FLEX IN GRAIN SORGHUM	30.00	12	360
TOTAL	600.00		10,410
ACRE FEET PER ACRE OF WATER ALLOCATION			1.45

* DOUBLE-CROPPED

TABLE 2. Basic cost information for the Arch Hurley Conservancy District, Quay County, Projected 2006.

Item			
Labor Wage Rate:			
Equipment operators	\$/hour		\$7.45
General & Irrigators	\$/hour		\$6.65
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)	\$/pound		\$0.52
Phosphate (P205)	\$/pound		\$0.40
Seed:			
Alfalfa	\$/pound		\$3.20
Grain Sorghum	\$/pound		\$1.22
Wheat	\$/pound		\$0.28
Wire	\$/pound		\$0.50
Canal Water			
Assessment	\$/acre		\$6.00
Water	\$/acre foot		\$6.00
Energy:			
Diesel fuel	\$/gallon		\$2.10
Gasoline	\$/gallon		\$2.00
LP Gas	\$/gallon		\$2.00
Electricity (Farmers Elec Coop)	cents/KwHr		7.25
Employee Liability Insurance	\$/ \$1,000 wages		\$20.00
Employee Benefits	percent/wages		18.00%
Labor Downtime	percent		25.00%
Financial Rates:			
Operating Capital Interest Rate	percent		8.00%
Land Interest Rate	percent		8.00%
Equipment Interest Rate	percent		8.00%
Real Interest Rate	percent		3.00%
Land Taxes	\$96.00 /acre (full value)		\$0.77
Personal Property Tax Rate	- NR	\$/ \$1,000	(Assessed Value) \$24.18
	- R		\$16.59
Supervision Factors			
Field Crop-Irrigation	\$/labor hour		\$1.00
Field Crop-Equipment & General	\$/labor hour		\$0.50
Management Rate	percent		7.00%

TABLE 3. Overhead cost information for the Arch Hurley Conservancy District, Quay County, Projected 2006.

Item			
Electricity (Domestic & Shop)		\$212.00 per month	\$2,544
Telephone		\$106.00 per month	\$1,272
Accounting & Legal			\$1,664
Misc. Supplies & Hand Tools			\$2,268
Pickup and Auto			
miles	21,836	@ \$0.415 per mile	\$9,062
Insurance			
- general liability (non-employee)			\$1,675
- fire/theft			\$1,314
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$1,272
Dues, fees, publications			\$382
Farmstead Equipment			\$159
Total			\$27,622
Total per planted acre			\$46.04

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 600 acre farm, Arch Hurley Conservancy District, Quay County
Projected 2006.

Planting dates: August 1 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
PURCHASE INPUTS								
SEED	\$3.20	16 LBS	\$51.20					\$51.20
OAT SEED	\$0.23	40 LBS	\$9.20					\$9.20
NITROGEN (N)	\$0.52	30 LBS	\$15.60					\$15.60
PHOSPHATE (P205)	\$0.40	60 LBS	\$24.00					\$24.00
CANAL WATER	\$6.00	6 AC. IN.	\$3.00					\$3.00
SUBTOTAL			\$103.00					\$103.00
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.08 HR		\$0.60	\$1.51	\$0.86	\$2.64	\$5.61
DISC	145 HP	0.14 HR		\$1.04	\$2.64	\$1.27	\$2.58	\$7.53
FLOAT	145 HP	0.19 HR		\$1.42	\$3.58	\$1.03	\$2.96	\$8.98
FERT SPREADER	70 HP	0.05 HR		\$0.37	\$0.64	\$0.15	\$0.73	\$1.89
DRILL	70 HP	0.18 HR		\$1.34	\$2.30	\$0.56	\$3.06	\$7.26
IRRIGATE (3X)		0.30 HR		\$2.00	\$5.67	\$0.00	\$1.33	\$9.00
SUBTOTAL		0.94 HR	\$0.00	\$6.76	\$16.33	\$3.87	\$13.32	\$40.29
OVERHEAD EXPENSES								
DOWNTIME		0.24 HR		\$1.75				\$1.75
EMPLOYEE BENEFITS				\$1.22				\$1.22
INSURANCE			\$0.02					\$0.02
SUPERVISION AND MANAGEMENT				\$10.62				\$10.62
SUBTOTAL		0.24 HR	\$0.02	\$13.59				\$13.61
TOTAL OPERATING EXPENSES		1.18 HR	\$103.02	\$20.35	\$16.33	\$3.87	\$13.32	\$156.89

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 600 acre farm with above average management, Arch Hurley Conservancy District, Quay Coun
 Projected 2006.
 Harvesting dates: May 25 - October 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALFA HAY	\$130.00	4.50 TONS (STACKED)	\$585.00
GRAZING	\$48.00	1.00 ACRE	\$48.00
TOTAL			\$633.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
PHOSPHATE (P205)	\$0.40	60 LBS	\$24.00		\$24.00
WIRE	\$0.50	39 LBS	\$19.28		\$19.28
ESTABLISHMENT: Principal		8 YEARS		\$19.61	\$19.61
: Interest				\$7.04	\$7.04
CANAL WATER: Assessment	\$6.00	1 ACRE	\$6.00		\$6.00
Water	\$6.00	24 AC. IN.	\$12.00		\$12.00
SUBTOTAL			\$61.28	\$26.65	\$87.93

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERT SPREADER	70 HP	0.05 HR		\$0.37	\$0.64	\$0.15	\$0.73	\$1.89
IRRIGATE		1.20 HR		\$7.98	\$22.69	\$0.00	\$5.34	\$36.01
SUBTOTAL		1.25 HR		\$8.35	\$23.33	\$0.15	\$6.07	\$37.90

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER (4X)	16 FT	0.44 HR		\$3.28	\$3.46	\$0.64	\$19.56	\$26.94
BALER (4X)	70 HP	0.84 HR		\$6.26	\$10.74	\$1.87	\$5.65	\$24.53
BALE WAGON, PTO (4X)	145 HP	0.80 HR		\$5.96	\$15.06	\$5.33	\$16.30	\$42.65
SUBTOTAL		2.08 HR	\$0.00	\$15.50	\$29.27	\$7.84	\$41.51	\$94.11

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.83 HR		\$6.20				\$6.20
EMPLOYEE BENEFITS			\$5.41				\$5.41
INSURANCE			\$0.08				\$0.08
LAND TAXES						\$0.77	\$0.77
SUPERVISION AND MANAGEMENT			\$46.39				\$46.39
OTHER EXPENSES			\$46.04				\$46.04
SUBTOTAL	0.83 HR	\$46.12	\$58.00			\$0.77	\$104.90

TOTAL OPERATING EXPENSES 4.16 HR \$107.40 \$81.85 \$52.59 \$7.99 \$75.00 \$324.84

NET OPERATING PROFIT \$308.16

INTEREST ON OPERATING CAPITAL (\$39.60 @ 8.00%) \$3.17
 INTEREST ON EQUIPMENT INVESTMENT \$33.36

RETURN TO LAND AND RISK \$271.62

BUDGET SUMMARY

GROSS RETURN	\$633.00	
VARIABLE OPERATING EXPENSES	\$167.99	
RETURN OVER VARIABLE EXPENSES	\$465.01	(GROSS MARGIN)
FIXED EXPENSES	\$75.00	
NET FARM INCOME	\$390.01	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$81.85	
NET OPERATING PROFIT	\$308.16	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$36.53	
RETURN TO LAND AND RISK	\$271.62	

TABLE 8. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 600 acre farm with above average management, Arch Hurley Conservancy District, Quay Cr Projected 2006.

Planting dates: May 15 - July 1

Harvesting dates: October 15 - December 15

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
GRAIN SORGHUM	\$3.70	50.00 CWT		\$184.82
DIRECT PAYMENT	\$0.00	50.00 CWT	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00	0.00 CWT		\$0.00
GRAZING	\$48.00	1.00 ACRE		\$48.00
TOTAL				\$232.82

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$1.22	7.00 LBS	\$8.54		\$8.54
NITROGEN (N)	\$0.52	80.00 LBS	\$41.60		\$41.60
PHOSPHATE (P205)	\$0.40	20.00 LBS	\$8.00		\$8.00
HERBICIDE (CUSTOM)	\$15.07	1.00 ACRE	\$15.07		\$15.07
CANAL WATER: Assessment	\$6.00	1.00 ACRE	\$6.00		\$6.00
Water	\$6.00	18.00 AC. IN.	\$9.00		\$9.00
CROP INSURANCE	\$0.22		\$0.22		\$0.22
SUBTOTAL			\$88.42		\$88.42

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWEEP	145 HP	0.08 HR		\$0.60	\$1.51	\$0.86	\$2.64	\$5.61
DISC	145 HP	0.14 HR		\$1.04	\$2.64	\$1.27	\$2.58	\$7.53
FLOAT	145 HP	0.19 HR		\$1.42	\$3.58	\$1.03	\$2.96	\$8.98
DISC & SPRAY	145 HP	0.17 HR		\$1.27	\$3.20	\$1.66	\$3.99	\$10.12
FERT SPREADER	70 HP	0.05 HR		\$0.37	\$0.64	\$0.15	\$0.73	\$1.89
ROD WEED	145 HP	0.08 HR		\$0.60	\$1.51	\$0.49	\$1.58	\$4.18
PLANTER	70 HP	0.17 HR		\$1.27	\$2.17	\$0.70	\$4.57	\$8.71
CULTIVATOR	70 HP	0.13 HR		\$0.97	\$1.66	\$0.67	\$2.09	\$5.39
IRRIGATE (12X)		1.20 HR		\$7.98	\$17.02	\$0.00	\$4.00	\$29.00
SUBTOTAL		2.21 HR		\$15.50	\$33.92	\$6.84	\$25.16	\$81.42
HARVEST OPERATIONS								
COMBINE	18 FT	0.19 HR		\$1.42	\$4.72	\$0.42	\$10.30	\$16.85
HAUL	2T	0.19 HR		\$1.42	\$2.53	\$1.17	\$11.44	\$16.56
SUBTOTAL		0.38 HR		\$2.83	\$7.26	\$1.59	\$21.74	\$33.42
OVERHEAD EXPENSES								
DOWNTIME		0.65 HR		\$4.82				\$4.82
EMPLOYEE BENEFITS				\$4.17				\$4.17
INSURANCE			\$0.08					\$0.08
LAND TAXES							\$0.77	\$0.77
SUPERVISION AND MANAGEMENT				\$18.24				\$18.24
OTHER EXPENSES			\$46.04					\$46.04
SUBTOTAL		0.65 HR	\$46.11	\$27.23			\$0.77	\$74.12
TOTAL OPERATING EXPENSES		3.89 HR	\$134.54	\$45.57	\$41.18	\$8.43	\$47.68	\$277.38
NET OPERATING PROFIT								(\$44.56)
INTEREST ON OPERATING CAPITAL		(\$55.14 @	8.00%)				\$4.41
INTEREST ON EQUIPMENT INVESTMENT								\$29.61
RETURN TO LAND AND RISK								(\$78.58)

BUDGET SUMMARY			
GROSS RETURN		\$232.82	
VARIABLE OPERATING EXPENSES	\$184.14		
RETURN OVER VARIABLE EXPENSES		\$48.68	(GROSS MARGIN)
FIXED EXPENSES	\$47.68		
NET FARM INCOME		\$1.01	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$45.57		
NET OPERATING PROFIT		(\$44.56)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$34.02		
RETURN TO LAND AND RISK		(\$78.58)	

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TABLE 9. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 600 acre farm with above average management, Arch Hurley Conservancy District, Quay Count Projected 2006.
 Planting dates: August 15 - September 15
 Harvesting dates: June 15 - July 15

ITEM	PRICE	YIELD	BASE						TOTAL	
GROSS RETURNS										
WHEAT	\$3.75	20.00 BUSHELS							\$75.00	
DIRECT PAYMENT	\$0.00	20.00 BUSHELS	0.85						\$0.00	
COUNTER CYCLICAL PAYMENT	\$0.00								\$0.00	
GRAZING	\$48.00	1.00 ACRE							\$48.00	
TOTAL									\$123.00	
PURCHASED INPUTS										
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS						FIXED COST	TOTAL
SEED	\$0.28	60.00 LBS	\$16.80						\$16.80	
NITROGEN (N)	\$0.52	80.00 LBS	\$41.60						\$41.60	
PHOSPHATE (P205)	\$0.40	20.00 LBS	\$8.00						\$8.00	
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	12.00 AC. IN.	\$6.00						\$6.00	
CROP INSURANCE	\$0.29		\$0.29						\$0.29	
SUBTOTAL			\$93.76						\$93.76	
PREHARVEST OPERATIONS										
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL		
CHISEL	145 HP	0.08 HR		\$0.60	\$1.51	\$0.86	\$2.64	\$5.61		
DISC (2X)	145 HP	0.28 HR		\$2.09	\$5.27	\$2.55	\$5.16	\$15.07		
FLOAT	145 HP	0.24 HR		\$1.79	\$4.52	\$1.30	\$3.74	\$11.35		
FERT SPREADER	70 HP	0.05 HR		\$0.37	\$0.64	\$0.15	\$0.73	\$1.89		
DRILL	70 HP	0.18 HR		\$1.34	\$2.30	\$0.56	\$3.06	\$7.26		
IRRIGATE (8X)		0.80 HR		\$5.32	\$11.34	\$0.00	\$2.67	\$19.33		
SUBTOTAL		1.63 HR		\$11.50	\$25.58	\$5.42	\$18.01	\$60.52		
HARVEST OPERATIONS										
COMBINE	18 FT	0.19 HR		\$1.42	\$4.72	\$0.42	\$10.30	\$16.85		
HAUL	2T	0.19 HR		\$1.42	\$2.53	\$1.17	\$11.44	\$16.56		
SUBTOTAL		0.38 HR		\$2.83	\$7.26	\$1.59	\$21.74	\$33.42		
OVERHEAD EXPENSES										
DOWNTIME		0.50 HR		\$1.88				\$1.88		
EMPLOYEE BENEFITS				\$2.15				\$2.15		
INSURANCE			\$0.05					\$0.05		
LAND TAXES							\$0.77	\$0.77		
SUPERVISION AND MANAGEMENT				\$6.15				\$6.15		
OTHER EXPENSES			\$46.04					\$46.04		
SUBTOTAL		0.50 HR	\$46.09	\$10.18			\$0.77	\$57.04		
TOTAL OPERATING EXPENSES		2.51 HR	\$139.85	\$24.51	\$32.84	\$7.00	\$40.53	\$244.73		
NET OPERATING PROFIT								(\$121.73)		
INTEREST ON OPERATING CAPITAL		(\$55.37 @ 8.00%)						\$4.43		
INTEREST ON EQUIPMENT INVESTMENT								\$25.59		
RETURN TO LAND AND RISK								(\$151.75)		

BUDGET SUMMARY			
GROSS RETURN	\$123.00		
VARIABLE OPERATING EXPENSES	\$179.69		
RETURN OVER VARIABLE EXPENSES	(\$56.69)	(GROSS MARGIN)	
FIXED EXPENSES	\$40.53		
NET FARM INCOME	(\$97.22)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$24.51		
NET OPERATING PROFIT	(\$121.73)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$30.02		
RETURN TO LAND AND RISK	(\$151.75)		

TABLE 10. Summary of per acre costs and returns for a 600 acre farm, Arch Hurley Conservancy District, Quay County, Projected 2006.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	GRAIN SORGHUM	WHEAT
		TONS	CWT	BU
PRIMARY YIELD		4.50	50.00	20.00
PRIMARY PRICE		\$130.00	\$3.70	\$3.75
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$48.00	\$48.00	\$48.00
GROSS RETURN		\$633.00	\$232.82	\$123.00
CASH OPERATING EXPENSES				
SEED	\$60.40		\$8.54	\$16.80
FERTILIZER	\$39.60	\$24.00	\$49.60	\$49.60
CHEMICALS			\$15.07	\$15.07
CROP INSURANCE			\$0.22	\$0.29
OTHER PURCHASED INPUTS		\$19.37	\$0.08	\$0.05
CANAL WATER	\$3.00	\$18.00	\$15.00	\$12.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$10.66	\$29.90	\$24.16	\$21.49
FUEL-IRRIGATION	\$5.67	\$22.69	\$17.02	\$11.34
REPAIRS	\$3.87	\$7.99	\$8.43	\$7.00
CUSTOM CHARGES		\$0.00		
LAND TAXES		\$0.77	\$0.77	\$0.77
OTHER EXPENSES	\$0.02	\$46.04	\$46.04	\$46.04
TOTAL CASH EXPENSES	\$123.23	\$168.76	\$184.91	\$180.46
RETURN OVER CASH EXPENSES	-\$123.23	\$464.24	\$47.91	-\$57.46
FIXED EXPENSES	\$13.32	\$74.23	\$46.90	\$39.75
TOTAL EXPENSES	\$136.55	\$242.99	\$231.82	\$220.22
NET FARM INCOME	-\$136.55	\$390.01	\$1.01	-\$97.22
LABOR AND MANAGEMENT COSTS	\$20.35	\$81.85	\$45.57	\$24.51
NET OPERATING PROFIT	-\$156.89	\$308.16	-\$44.56	-\$121.73
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$3.17	\$4.41	\$4.43
INTEREST ON EQUIPMENT INVESTMENT		\$33.36	\$29.61	\$25.59
TOTAL CAPITAL COSTS	\$0.00	\$36.53	\$34.02	\$30.02
RETURN TO LAND AND RISK	-\$156.89	\$271.62	-\$78.58	-\$151.75

TABLE 11. Whole farm summary, Arch Hurley Conservancy District, Quay County, Projected 2006.

GROSS RETURNS		
ALFALFA HAY	200.00 ACRES	
CROP		\$117,000
GRAZING		\$9,600
GRAIN SORGHUM	230.00 ACRES	
CROP		\$42,509
GRAZING		\$11,040
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
WHEAT	170.00 ACRES	
CROP		\$12,750
GRAZING		\$8,160
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
GROSS RETURN		<u>\$201,059</u>
CASH OPERATING EXPENSES		
SEED		\$6,330
FERTILIZER		\$25,630
CHEMICALS		\$6,026
CROP INSURANCE		\$100
OTHER PURCHASED INPUTS		\$3,900
CANAL WATER		\$9,165
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$15,458
FUEL-IRRIGATION		\$10,522
REPAIRS		\$4,823
CUSTOM CHARGES		\$0
LAND TAXES		\$464
OTHER EXPENSES		\$27,623
TOTAL CASH EXPENSES		<u>\$110,042</u>
RETURN OVER CASH EXPENSES		\$91,017
FIXED EXPENSES		\$28,802
TOTAL EXPENSES		\$138,844
NET FARM INCOME		\$62,215
LABOR AND MANAGEMENT COSTS		\$31,527
NET OPERATING PROFIT		\$30,688
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$2,401
INTEREST ON EQUIPMENT INVESTMENT		\$17,834
TOTAL CAPITAL COSTS		<u>\$20,235</u>
RETURN TO LAND AND RISK		<u>\$10,453</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	\$6,853	10.89%
\$400 /ACRE	\$3,253	7.64%
\$600 /ACRE	(\$347)	5.88%
\$800 /ACRE	(\$3,947)	4.78%
\$1,000 /ACRE	(\$7,547)	4.03%
\$1,200 /ACRE	(\$11,147)	3.48%

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

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