

TABLE 1. Acreage Summary, Quay County,  
Projected 2017

BUDGET AREA.....	SOUTHERN QUAY COUNTY		
FARM SIZE.....	1,000 ACRES		
IRRIGATION TYPE.....	SPRINKLER/DRYLAND		
NUMBER OF CROPS.....	2		

  

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
WHEAT	607.75	0	0
ARP	0.00		
FLEX IN GRAIN SORGHUM	107.25	0	0
GRAIN SORGHUM	212.50	12	2,550
ARP	0.00		
FLEX IN GRAIN SORGHUM	37.50	12	450
ROADS, HOMESTEAD, FALLOW	35.00		
<b>TOTAL</b>	<b>1,000.00</b>		<b>3,000</b>

TABLE 2. Basic cost information for Southern Quay County,  
Projected 2017

Item			
<b>Labor Wage Rate:</b>			
Equipment operators	\$/hour		\$8.55
General & Irrigators	\$/hour		\$7.50
<b>Purchased Inputs:</b>			
<b>Fertilizer:</b>			
Nitrogen (N)	\$/pound		\$0.22
Phosphate (P205)	\$/pound		\$0.27
<b>Seed:</b>			
Wheat	\$/pound		\$0.44
Grain Sorghum	\$/pound		\$1.70
<b>Energy Costs:</b>			
Diesel fuel	\$/gallon		\$2.35
Gasoline	\$/gallon		\$2.10
Electricity (Farmers Elec Coop)	cents/KwHr		8.27
LP Gas	\$/gallon		\$2.75
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		5.50%
Land Interest Rate	percent		5.00%
Equipment Interest Rate	percent		5.50%
Real Interest Rate	percent		3.00%
<b>Land Taxes</b>			
Irrigated	\$96.00 /acre (full value)		\$0.82
Dryland	\$38.00 /acre (full value)		\$0.33
Personal Property Tax Rate	- NR	\$/ \$1,000 (Assessed Value)	\$25.73
	- R		\$20.14
<b>Supervision Factors</b>			
Field Crop-Irrigation	\$/acre		\$1.00
Field Crop-Equipment & General	\$/acre		\$0.50
Management Rate	percent		7.00%

TABLE 3. Overhead cost information for Southern Quay County,  
Projected 2017

Item			
Electricity (Domestic & Shop)		\$242.00 per month	\$2,904
Telephone		\$121.00 per month	\$1,452
Accounting & Legal			\$1,779
Misc. Supplies & Hand Tools			\$2,668
Pickup and Auto			
miles	24,926	@ \$0.500 per mile	\$12,463
<b>Insurance</b>			
- general liability (non-employee)			\$1,912
- fire/theft			\$1,513
<b>Property Taxes</b>			
- non-planted land			\$0
- other than land & machinery			\$6,010
Building repairs and maintenance			\$1,452
Dues, fees, publications			\$436
Farmstead Equipment			\$182
		<b>Total</b>	<b>\$32,769</b>
		Total per planted acre	\$33.96
		Total per dryland acre	\$18.35



TABLE 6. Wheat, dryland, budgeted per acre costs and returns for a 1,000 acre farm with above average management, Southern Quay County, Projected 2017  
 Planting dates: August 20 - September 15  
 Harvesting dates: June 15 - July 10

ITEM	PRICE	YIELD	BASE	TOTAL
<b>GROSS RETURNS</b>				
WHEAT	\$4.20	20.00 BUSHELS		\$84.00
DIRECT PAYMENT	\$0.00	20.00 BUSHELS	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00			\$0.00
GRAZING	\$5.00	1.00 ACRE		\$5.00
<b>TOTAL</b>				<b>\$89.00</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$0.44	25 LBS	\$11.00		\$11.00
CROP INSURANCE	\$0.08		\$0.08		\$0.08
<b>SUBTOTAL</b>			<b>\$11.08</b>		<b>\$11.08</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWEEP (2X)	185 HP	0.16 HR		\$1.37	\$3.89	\$1.77	\$3.76	\$10.79
STUBBLE MULCHER	185 HP	0.08 HR		\$0.68	\$1.95	\$1.21	\$3.27	\$7.11
RODWEED (2X)	126 HP	0.16 HR		\$1.37	\$3.10	\$0.76	\$1.74	\$6.97
DRILL	126 HP	0.12 HR		\$1.03	\$2.33	\$0.79	\$3.12	\$7.27
<b>SUBTOTAL</b>		<b>0.52 HR</b>		<b>\$4.45</b>	<b>\$11.27</b>	<b>\$4.53</b>	<b>\$11.89</b>	<b>\$32.14</b>

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
COMBINE	22 FT	0.14 HR		\$1.20	\$2.71	\$0.58	\$3.41	\$7.90
HAUL	2 TON	0.14 HR		\$1.20	\$2.09	\$0.90	\$4.72	\$8.91
<b>SUBTOTAL</b>		<b>0.28 HR</b>		<b>\$2.39</b>	<b>\$4.80</b>	<b>\$1.48</b>	<b>\$8.13</b>	<b>\$16.81</b>

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.20 HR		\$1.71				\$1.71
EMPLOYEE BENEFITS			\$1.23				\$1.23
INSURANCE			\$0.14				\$0.14
LAND TAXES						\$0.33	\$0.33
SUPERVISION AND MANAGEMENT			\$7.23				\$7.23
OTHER EXPENSES			\$18.35				\$18.35
<b>SUBTOTAL</b>	<b>0.20 HR</b>		<b>\$18.48</b>	<b>\$10.17</b>		<b>\$0.33</b>	<b>\$28.98</b>

<b>TOTAL OPERATING EXPENSES</b>	<b>1.00 HR</b>		<b>\$29.56</b>	<b>\$17.01</b>	<b>\$16.07</b>	<b>\$6.01</b>	<b>\$20.35</b>	<b>\$89.01</b>
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<b>NET OPERATING PROFIT</b>								<b>(\$0.01)</b>
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INTEREST ON OPERATING CAPITAL	(	\$10.02	@	5.50%	)			\$0.55
INTEREST ON EQUIPMENT INVESTMENT								\$8.29

<b>RETURN TO LAND AND RISK</b>								<b>(\$8.84)</b>
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**BUDGET SUMMARY**

GROSS RETURN		\$89.00		
VARIABLE OPERATING EXPENSES	\$51.65			
RETURN OVER VARIABLE EXPENSES		\$37.35	(GROSS MARGIN)	
FIXED EXPENSES	\$20.35			
NET FARM INCOME		\$17.01	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$17.01			
NET OPERATING PROFIT		(\$0.01)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$8.84			
RETURN TO LAND AND RISK		(\$8.84)		

TABLE 7. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 1,000 acre farm with above average management, Southern Quay County, Projected 2017  
 Planting dates: June 15 - July 15  
 Harvesting dates: September 20 - October 30

ITEM	PRICE	YIELD	BASE						TOTAL
<b>GROSS RETURNS</b>									
GRAIN SORGHUM	\$5.91	50.00 CWT							\$295.71
COUNTER CYCLICAL PAYMENT	\$0.00	0.00 CWT							\$0.00
DIRECT PAYMENT	\$0.00	50.00 CWT	0.85						\$0.00
<b>TOTAL</b>									<b>\$295.71</b>
<b>PURCHASED INPUTS</b>									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
SEED	\$1.70	5 LBS	\$8.50						\$8.50
NITROGEN (N)	\$0.22	80 LBS	\$17.60						\$17.60
PHOSPHATE (P205)	\$0.27	40 LBS	\$10.80						\$10.80
HERBICIDE	\$16.99	1 ACRE	\$16.99						\$16.99
PUMP WATER		12 AC. IN.							
CROP INSURANCE	\$0.14		\$0.14						\$0.14
<b>SUBTOTAL</b>									<b>\$54.03</b>
<b>PREHARVEST OPERATIONS</b>									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
SWEEP	185 HP	0.08 HR		\$0.68	\$1.95	\$0.88	\$1.88	\$5.39	
DISC (2X)	185 HP	0.22 HR		\$1.88	\$5.36	\$3.29	\$7.06	\$17.59	
SPRAYER	126 HP	0.06 HR		\$0.51	\$1.16	\$0.28	\$1.17	\$3.13	
LISTER	185 HP	0.12 HR		\$1.03	\$2.92	\$1.00	\$3.08	\$8.03	
ROD WEED & PLANTER	185 HP	0.18 HR		\$1.54	\$4.38	\$1.52	\$5.92	\$13.37	
CULTIVATOR (2X)	126 HP	0.26 HR		\$2.22	\$5.04	\$2.00	\$3.87	\$13.13	
IRRIGATE (12X)		1.20 HR		\$9.00	\$49.98	\$0.00	\$10.32	\$69.30	
<b>SUBTOTAL</b>		<b>2.12 HR</b>		<b>\$16.87</b>	<b>\$70.79</b>	<b>\$8.98</b>	<b>\$33.32</b>	<b>\$129.94</b>	
<b>HARVEST OPERATIONS</b>									
COMBINE	22 FT	0.16		\$1.37	\$3.10	\$0.66	\$3.90	\$9.03	
HAUL	2 TON	0.16		\$1.37	\$2.39	\$1.03	\$5.40	\$10.18	
<b>SUBTOTAL</b>		<b>0.32 HR</b>		<b>\$2.74</b>	<b>\$5.49</b>	<b>\$1.69</b>	<b>\$9.29</b>	<b>\$19.21</b>	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.61 HR		\$5.22				\$5.22	
EMPLOYEE BENEFITS				\$3.53				\$3.53	
INSURANCE			\$0.39					\$0.39	
LAND TAXES							\$0.82	\$0.82	
SUPERVISION AND MANAGEMENT				\$21.70				\$21.70	
OTHER EXPENSES			\$33.96					\$33.96	
<b>SUBTOTAL</b>		<b>0.61 HR</b>		<b>\$34.35</b>	<b>\$30.44</b>		<b>\$0.82</b>	<b>\$65.62</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>2.73 HR</b>		<b>\$88.38</b>	<b>\$50.05</b>	<b>\$76.28</b>	<b>\$10.67</b>	<b>\$268.80</b>	
<b>NET OPERATING PROFIT</b>									<b>\$26.92</b>
INTEREST ON OPERATING CAPITAL		(	\$47.55	@	5.50%	)		\$2.62	
INTEREST ON EQUIPMENT INVESTMENT									\$17.89
<b>RETURN TO LAND AND RISK</b>									<b>\$6.42</b>

\* Pump water costs are shown under irrigation in the preharvest operations section.

**BUDGET SUMMARY**

GROSS RETURN		\$295.71	
VARIABLE OPERATING EXPENSES	\$175.32		
RETURN OVER VARIABLE EXPENSES		\$120.40	(GROSS MARGIN)
FIXED EXPENSES	\$43.43		
NET FARM INCOME		\$76.96	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$50.05		
NET OPERATING PROFIT		\$26.92	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$20.50		
RETURN TO LAND AND RISK		\$6.42	

TABLE 8. Summary of per acre costs and returns for a 1,000 acre farm, Southern Quay County, Projected 2017

	WHEAT (Dryland)	GRAIN SORGHUM (Sprinkler)
	BU	CWT
PRIMARY YIELD	20.00	50.00
PRIMARY PRICE	\$4.20	\$5.91
GOVERNMENT PAYMENTS	\$0.00	\$0.00
SECOND INCOME	\$5.00	\$0.00
GROSS RETURN	\$89.00	\$295.71
CASH OPERATING EXPENSES		
SEED	\$11.00	\$8.50
FERTILIZER		\$28.40
CHEMICALS		\$16.99
CROP INSURANCE	\$0.08	\$0.14
OTHER PURCHASED INPUTS		
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$16.07	\$26.30
FUEL-IRRIGATION		\$49.98
REPAIRS	\$6.01	\$10.67
CUSTOM CHARGES		
LAND TAXES	\$0.33	\$0.82
OTHER EXPENSES	\$18.48	\$34.35
TOTAL CASH EXPENSES	\$51.97	\$176.14
RETURN OVER CASH EXPENSES	\$37.03	\$119.57
FIXED EXPENSES	\$20.02	\$42.61
TOTAL EXPENSES	\$71.99	\$218.75
NET FARM INCOME	\$17.01	\$76.96
LABOR AND MANAGEMENT COSTS	\$17.01	\$50.05
NET OPERATING PROFIT	(\$0.01)	\$26.92
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL	\$0.55	\$2.62
INTEREST ON EQUIPMENT INVESTMENT	\$8.29	\$17.89
TOTAL CAPITAL COSTS	\$8.84	\$20.50
RETURN TO LAND AND RISK	(\$8.84)	\$6.42

TABLE 9. Whole farm summary, Southern Quay County,  
Projected 2017

GROSS RETURNS		
WHEAT	607.75 ACRES	
CROP		\$51,051
GRAZING		\$3,039
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
GRAIN SORGHUM	357.25 ACRES	
CROP		\$105,644
COUNTER CYCLICAL PAYMENT		\$0
DIRECT PAYMENT		\$0
GROSS RETURN		<u>\$159,734</u>
CASH OPERATING EXPENSES		
SEED		\$9,722
FERTILIZER		\$10,146
CHEMICALS		\$6,068
CROP INSURANCE		\$100
OTHER PURCHASED INPUTS		\$0
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$19,164
FUEL-IRRIGATION		\$17,854
REPAIRS		\$7,463
CUSTOM CHARGES		\$0
LAND TAXES		\$492
OTHER EXPENSES		\$23,504
TOTAL CASH EXPENSES		<u>\$94,514</u>
RETURN OVER CASH EXPENSES		\$65,219
FIXED EXPENSES		\$27,389
TOTAL EXPENSES		\$121,903
NET FARM INCOME		\$37,830
LABOR AND MANAGEMENT COSTS		\$28,217
NET OPERATING PROFIT		\$9,613
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$1,269
INTEREST ON EQUIPMENT INVESTMENT		\$11,426
TOTAL CAPITAL COSTS		<u>\$12,695</u>
RETURN TO LAND AND RISK		<u>(\$3,082)</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$150 /ACRE	(\$7,582)	2.71%
\$300 /ACRE	(\$12,082)	1.90%
\$450 /ACRE	(\$16,582)	1.47%
\$600 /ACRE	(\$21,082)	1.19%
\$750 /ACRE	(\$25,582)	1.01%
\$900 /ACRE	(\$30,082)	0.87%

\* 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)