

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

Item				
Labor Wage Rate:				
Equipment Operators		\$/hour		\$7.55
General and Irrigators		\$/hour		\$6.75
Purchased Inputs:				
Fertilizer				
Nitrogen (N)		\$/pound		\$0.36
Phosphate (P205)		\$/pound		\$0.33
(16-4-12-12)		\$/pound		\$0.12
Seed:				
Alfalfa		\$/pound		\$3.00
Wheat		\$/pound		\$0.13
Grain Sorghum		\$/pound		\$1.20
Jose Wheatgrass		\$/pound		\$1.65
Wire		\$/pound		\$0.39
Canal Water				
Assessment		\$/acre		\$7.00
Water 1 - 18 inches		\$/acre foot		\$7.00
Energy:				
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%
Financial Rates:				
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		\$/ \$1,000 (Assessed Value)		\$26.16
- R				\$25.14
Supervision Factors				
Field Crop-Irrigation		\$/labor hour		\$1.00
Field Crop-Equipment & General		\$/labor hour		\$0.50
Management Rate		percent		7.00%

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	\$2,772
Telephone	\$110.00	per month	\$1,320	\$132	\$1,452
Accounting & Legal			1610		\$1,610
Misc. Supplies & Hand Tools			2220	\$222	\$2,442
Vehicles					
miles	20,600	Crop			
		Livestock			
		@	\$0.365	per mile	
Insurance					
- general liability (non-employee)			\$1,635		\$1,635
- fire/theft			1630		\$1,630
Property Taxes					
- non-farm land			\$40		\$40
- other than land & machinery			575		\$575
Building repairs and maintenance			1230	\$123	\$1,353
Dues, fees, publications			360	\$60	\$420
Farmstead Equipment			160	\$16	\$176
Total			\$20,819	\$4,565	\$25,383
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	AXES	TOTAL PER HOUR	
TRACTOR 70 HP	256	1	\$6,790	\$1,230	\$736	\$4.80	\$2.88	\$705	\$92	\$3.11	
TRACTOR 165 HP	353	1	\$31,475	\$4,149	\$2,367	\$11.74	\$6.70	\$4,652	\$304	\$14.03	
TRUCK 2 TON	56	1	\$22,000	\$482	\$857	\$8.65	\$15.40	\$4,400	\$192	\$82.48	
COMBINE 95 HP	56	1	\$1,200	\$417	\$98	\$7.49	\$1.76	\$338	\$59	\$7.12	
GRAIN HEAD 18 FT	56	1	\$14,410		\$140		\$2.51	\$1,519	\$99	\$29.08	
SWATHER 14 FT	64	1	\$4,300	\$312	\$204	\$4.87	\$3.19	\$1,450	\$126	\$24.63	
BALER, PTO 2-WIRE	84	1	\$1,500		\$110		\$1.31	\$385	\$34	\$4.98	
BALE WAGON, PTO	80	1	\$1,850		\$333		\$4.16	\$800	\$70	\$10.87	
PLANTER 6-ROW	28	1	\$4,250		\$169		\$6.04	\$850	\$37	\$31.62	
CHISEL 9-PT	50	1	\$1,350		\$43		\$0.86	\$180	\$12	\$3.87	
ROLLING CULT 6-ROW	21	1	\$3,000		\$50		\$2.34	\$400	\$26	\$19.87	
FLOAT 12 FT	63	1	\$500		\$9		\$0.14	\$53	\$3	\$0.90	
DISC 14 FT	93	1	\$3,000		\$168		\$1.80	\$400	\$26	\$4.57	
DRILL 13 FT	30	1	\$2,150		\$91		\$3.05	\$430	\$19	\$15.06	
HARROW 21 FT	47	1	\$450		\$5		\$0.12	\$60	\$4	\$1.37	
LISTER 6-ROW	40	1	\$2,150		\$58		\$1.46	\$287	\$19	\$7.70	
SPRAYER (MTD) 4-ROW	28	1	\$1,400		\$56		\$1.99	\$187	\$12	\$7.09	
ROD WEEDER 6-ROW	13	1	\$625		\$7		\$0.54	\$83	\$5	\$6.73	
DITCHER	32	1	\$1,250		\$8		\$0.25	\$167	\$11	\$5.63	
FERT SPREADER	32	1	\$2,300		\$91		\$2.90	\$307	\$20	\$10.36	
			\$105,950	\$6,589	\$5,601			\$17,653	*****		

Table 2b. Value of Resources for Livestock Enterprise	UNIT	QUANTITY	\$/UNIT	TOTAL	USEFULL LIFE	DEPRECIATIO
Cattle:						
Cows	NO	252	700	\$176,400		
Replacement Heifers	NO	25	700	\$17,500		
Heifer Calves	NO	99	\$442	\$43,758		
Steer Calves	NO	124	\$504	\$62,496		
Bulls	NO	9	1000	\$9,233		
Horses	NO	1	1000	\$1,000		
Subtotal				\$310,387		
Other Range Facilities:						
Fencing						
- Permanent	MI	6	1500	\$9,000	25	\$360
- temporary	MI	10	250	\$2,500	10	\$250
Pipelines	MI	2	300	\$600	20	\$30
Tanks and Reservoirs	NO	8	500	\$4,000	40	\$100
Corrals	NO	1	5000	\$5,000	25	\$200
Livestock Trailer	NO	1	2500	\$2,500	5	\$500
Subtotal				\$23,600		
Total				\$333,987		\$1,440

Table 3b. Forage Sources for Livestock

	ACRES	AUMS/ ACRE	GRAZING MONTHS	AU/ MONTH	AUMS PROVIDED
JOSE WHEATGRASS	100	14.00	7	200	1,400
BERMUDA PASTURE	100	10.00	4	250	1,000
ALFALFA AFTERMATH	100	4.00	3	133	400
WHEAT	128	4.00	4.5	114	512
ASCS DIVERTED	8	8.30	6.5	10	62
GRAIN SORGHUM	165	4.00	5.0	132	660
HASED HAY		69.00 ton		14	173
TOTAL	601			853	4,207

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, 2003.

Planting dates: August 1 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$3.00	16 LBS		\$48.00				\$48.00
OAT SEED	\$0.23	40 LBS		\$9.20				\$9.20
NITROGEN	\$0.36	30 LBS		\$10.80				\$10.80
PHOSPHATE (P205)	\$0.33	60 LBS		\$19.80				\$19.80
CANAL WATER	\$7.00	8 AC. IN.		\$4.67				\$4.67
SUBTOTAL				\$92.47				\$92.47
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		\$1.13	\$1.76	\$1.13	\$2.68	\$6.71
DISC	145 HP	0.14 HR		\$1.06	\$1.64	\$1.19	\$2.60	\$6.49
FLOAT	145 HP	0.19 HR		\$1.43	\$2.23	\$1.30	\$2.84	\$7.80
FERT SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58
LISTER	145 HP	0.12 HR		\$0.91	\$1.41	\$0.98	\$2.61	\$5.90
DRILL	70 HP	0.18 HR		\$1.36	\$0.86	\$1.07	\$3.27	\$6.56
DITCHER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21
IRRIG ATE (2X)		1.20 HR		\$8.10				\$8.10
SUBTOTAL		2.08 HR		\$14.74	\$8.39	\$6.12	\$15.12	\$44.37
<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				\$11.19				\$11.19
SUBTOTAL		0.21 HR	0.29	15.41				15.71
TOTAL OPERATING EXPENSES		2.29 HR	\$92.76	\$30.16	\$8.39	\$6.12	\$15.12	\$152.54

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, 2003.
Harvesting dates: May 25 - October 15 Grazing dates: October 15 - December 15

ITEM	PRICE	YIELD						TOTAL		
GROSS RETURNS										
ALFALFA HAY	\$140.00	2.00	TONS (STACKED)					\$280.00		
GRAZING	\$8.00	4	AUM					\$32.00		
TOTAL								\$312.00		
PURCHASED INPUTS										
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL	
PHOSPHATE (P205)	\$0.33	60	LBS	\$19.80					\$19.80	
WIRE	\$0.39	17	LBS	\$6.68					\$6.68	
ESTABLISHMENT: Principal		6	YEARS				\$25.42	\$25.42		
: Interest							\$6.82	\$6.82		
CANAL WATER: Assessment	\$7.00	1	ACRE	\$7.00					\$7.00	
Water	\$7.00	24	AC. IN.	\$14.00					\$14.00	
MANURE CREDIT	\$1.00	4	AUM	\$4.00					\$4.00	
SUBTOTAL				\$51.48			\$32.25	\$83.73		
PREHARVEST OPERATIONS										
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL		
HARROW	70 HP	0.10 HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98		
FERT SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58		
DITCHER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21		
IRRIGATE (4X)		2.00 HR		\$13.50				\$13.50		
SUBTOTAL		2.20 HR		\$15.01	\$0.96	\$0.74	\$1.56	\$18.28		
HARVEST OPERATIONS										
SWATHER (4X)	14 FT SP	0.64 HR		\$4.83	\$3.12	\$2.04	\$15.76	\$25.75		
BALER (4X)	70 HP	0.84 HR		\$6.34	\$4.04	\$3.52	\$6.80	\$20.70		
BALE WAGON, PTO (4X)	145 HP	0.80 HR		\$6.04	\$9.39	\$8.69	\$19.92	\$44.04		
SUBTOTAL		2.28 HR	\$0.00	\$17.21	\$16.54	\$14.24	\$42.49	\$90.49		
OVERHEAD EXPENSES										
DOWNTIME		0.41 HR		\$3.08					\$3.08	
EMPLOYEE BENEFITS				\$5.80					\$5.80	
INSURANCE				\$0.64					\$0.64	
LAND TAXES							\$0.84	\$0.84		
SUPERVISION AND MANAGEMENT				\$24.66					\$24.66	
OTHER EXPENSES				\$35.14					\$35.14	
SUBTOTAL		0.41 HR	\$35.78	\$33.53					\$0.84	\$70.15
TOTAL OPERATING EXPENSES		4.89 HR	\$87.27	\$65.76	\$17.50	\$14.99	\$77.13	\$262.64		
NET OPERATING PROFIT								\$49.36		
INTEREST ON OPERATING CAPITAL	(\$28.73	@	8.00%					\$2.30	
INTEREST ON EQUIPMENT INVESTMENT									\$31.36	
RETURN TO LAND AND RISK									\$15.69	
BUDGET SUMMARY										
GROSS RETURN		\$312.00								
VARIABLE OPERATING EXPENSES	\$119.76									
RETURN OVER VARIABLE EXPENSES		\$192.24	(GROSS MARGIN)							
FIXED EXPENSES	\$77.13									
NET FARM INCOME		\$115.11	(RETURN TO CAPITAL, LABOR, LAND & RISK)							
LABOR AND MANAGEMENT COST	\$65.76									
NET OPERATING PROFIT		\$49.36	(RETURN TO CAPITAL, LAND & RISK)							
CAPITAL COSTS	\$33.66									
RETURN TO LAND AND RISK		\$15.69								

TABLE 6. Wheat, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2003.
 Planting dates: August 15 - September 15
 Harvesting dates: June 15 - July 10
 Grazing dates: November 1 - March 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
WHEAT	\$3.45	25.00 BUSHELS	\$86.25
DIRECT PAYMENT	\$0.52	25.00 BUSHELS	\$13.00
COUNTER CYCLICAL PAYMENT	\$0.00		\$0.00
GRAZING	\$12.00	4.00 AUM	\$48.00
TOTAL			\$147.25

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	TOTAL
SEED	\$0.13	60 LBS	\$7.80	\$7.80
NITROGEN (N)	\$0.36	80 LBS	\$28.80	\$28.80
PHOSPHATE (P205)	\$0.33	20 LBS	\$6.60	\$6.60
HERBICIDE	\$15.07	1 ACRE	\$15.07	\$15.07
CANAL WATER: Assessment	\$7.00	1 ACRE	\$7.00	\$7.00
Water	\$7.00	16 AC. IN.	\$9.33	\$9.33
MANURE CREDIT	\$1.00	4 AUM	\$4.00	\$4.00
CROP INSURANCE	\$0.39		\$0.39	\$0.39
SUBTOTAL			\$78.99	\$78.99

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		\$1.13	\$1.76	\$1.13	\$2.68	\$6.71
DISC (2X)	145 HP	0.28 HR		\$2.11	\$3.29	\$2.38	\$5.21	\$12.99
FLOAT	145 HP	0.19 HR		\$1.43	\$2.23	\$1.30	\$2.84	\$7.80
FERT SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58
PRE-IRRIGATE		0.75 HR		\$5.06				\$5.06
LISTER	145 HP	0.12 HR		\$0.91	\$1.41	\$0.98	\$2.61	\$5.90
HARROW	70 HP	0.10 HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98
DRILL	70 HP	0.18 HR		\$1.36	\$0.86	\$1.07	\$3.27	\$6.56
DITCHER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21
IRRIGATE (3X)		1.50 HR		\$10.13				\$10.13
SUBTOTAL		3.37 HR	\$0.00	\$23.64	\$10.51	\$7.61	\$18.17	\$59.93

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
COMBINE	18 FT	0.19 HR	\$0.00	\$1.43	\$1.42	\$0.81	\$6.88	\$10.54
HAUL	2 TON	0.19 HR	\$0.00	\$1.43	\$1.64	\$2.93	\$15.67	\$21.68
SUBTOTAL		0.38 HR	\$0.00	\$2.87	\$3.07	\$3.74	\$22.55	\$32.22

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.36 HR		\$2.74				\$2.74
EMPLOYEE BENEFITS			\$4.77				\$4.77
INSURANCE		\$0.53					\$0.53
LAND TAXES						\$0.84	\$0.84
SUPERVISION AND MANAGEMENT			\$12.53				\$12.53
OTHER EXPENSES		\$35.14					\$35.14
SUBTOTAL	0.36 HR	\$35.67	\$20.04			\$0.84	\$56.55

TOTAL OPERATING EXPENSES	4.11 HR	\$114.66	\$46.55	\$13.58	\$11.34	\$41.55	\$227.69
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NET OPERATING PROFIT							(\$80.44)
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INTEREST ON OPERATING CAPITAL	(\$44.59	@	8.00%)		\$3.57
INTEREST ON EQUIPMENT INVESTMENT							\$21.29
ASCS ACR (SET-ASIDE)	(0.10	@	\$45.37)		\$4.54

RETURN TO LAND AND RISK							(\$109.83)
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BUDGET SUMMARY			
GROSS RETURN		\$147.25	
VARIABLE OPERATING EXPENSES	\$139.58		
RETURN OVER VARIABLE EXPENSES		\$7.67	(GROSS MARGIN)
FIXED EXPENSES	\$41.55		
NET FARM INCOME		(\$33.88)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$46.55		
NET OPERATING PROFIT		(\$80.44)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$29.40		
RETURN TO LAND AND RISK		(\$109.83)	

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, 2003.
 Planting dates: May 15 - July 1
 Harvesting dates: October 15 - December 15
 Grazing dates: November 1 - March 30

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
GRAIN SORGHUM	\$4.39	27.00	CWT					\$118.53
DIRECT PAYMENT	\$0.625	27.00	CWT					\$16.88
COUNTER CYCLICAL PAYMENT	\$0.00	0.00	CWT					\$0.00
GRAZING	\$8.00	4.00	AUM					\$32.00
TOTAL								\$167.41
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	\$1.20	7	LBS	\$8.40				\$8.40
NITROGEN (N)	\$0.36	80	LBS	\$28.80				\$28.80
PHOSPHATE (P205)	\$0.33	20	LBS	\$6.60				\$6.60
HERBICIDE	\$15.97	1	ACRE	\$15.97				\$15.97
CANAL WATER: Assessment	\$7.00	1	ACRE	\$7.00				\$7.00
Water	\$7.00	16	AC. IN.	\$9.33				\$9.33
MANURE CREDIT	\$1.00	4	AUM	\$4.00				\$4.00
CROP INSURANCE	\$0.30			\$0.30				\$0.30
SUBTOTAL				\$80.41				\$80.41
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	145 HP	0.15 HR		\$1.13	\$1.76	\$1.13	\$2.68	\$6.71
DISC	145 HP	0.14 HR		\$1.06	\$1.64	\$1.19	\$2.60	\$6.49
FLOAT	145 HP	0.19 HR		\$1.43	\$2.23	\$1.30	\$2.84	\$7.80
DISC & SPRAY	145 HP	0.17 HR		\$1.28	\$2.00	\$1.78	\$4.37	\$9.43
FERT SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58
LISTER	145 HP	0.12 HR		\$0.91	\$1.41	\$0.98	\$2.61	\$5.90
PRE-IRRIGATE		0.75 HR		\$5.06				\$5.06
ROD WEED	70 HP	0.08 HR		\$0.60	\$0.38	\$0.27	\$0.79	\$2.05
PLANTER	145 HP	0.17 HR		\$1.28	\$2.00	\$2.16	\$7.76	\$13.20
ROLLING CULT	70 HP	0.13 HR		\$0.98	\$0.62	\$0.68	\$2.99	\$5.27
DITCHER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21
IRRIGATE (2X)		1.00 HR		\$6.75				\$6.75
SUBTOTAL		3.00 HR	0.00	21.25	12.53	9.95	27.75	71.47
HARVEST OPERATIONS								
COMBINE	18 FT	0.19 HR		\$1.43	\$1.42	\$0.81	\$6.88	\$10.54
HAUL	2 TON	0.19 HR		\$1.43	\$1.64	\$2.93	\$15.67	\$21.68
SUBTOTAL		0.38 HR	\$0.00	\$2.87	\$3.07	\$3.74	\$22.55	\$32.22
OVERHEAD EXPENSES								
DOWNTIME		0.40 HR		\$2.98				\$2.98
EMPLOYEE BENEFITS				\$4.34				\$4.34
INSURANCE			\$0.48					\$0.48
LAND TAXES							\$0.84	\$0.84
SUPERVISION AND MANAGEMENT				\$14.26				\$14.26
OTHER EXPENSES			\$35.14					\$35.14
SUBTOTAL		0.40 HR	\$35.62	\$21.58			\$0.84	\$58.04
TOTAL OPERATING EXPENSES		3.78 HR	\$116.03	\$45.70	\$15.59	\$13.68	\$51.13	\$242.14
NET OPERATING PROFIT								(\$74.73)
INTEREST ON OPERATING CAPITAL	(	\$46.39	@	8.00%)				\$3.71
INTEREST ON EQUIPMENT INVESTMENT								\$26.10
ASCS ACR (SET-ASIDE)	(	\$0.10	@	\$45.37)				\$4.54
RETURN TO LAND AND RISK								(\$109.08)

BUDGET SUMMARY

GROSS RETURN		\$167.41	
VARIABLE OPERATING EXPENSES	\$145.31		
RETURN OVER VARIABLE EXPENSES	\$22.10	(GROSS MARGIN)	
FIXED EXPENSES	\$51.13		
NET FARM INCOME	(\$29.03)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$45.70		
NET OPERATING PROFIT	(\$74.73)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$34.35		
RETURN TO LAND AND RISK	(\$109.08)		

TABLE 8. Bermudagrass, flood irrigated, budgeted per acre costs and returns for a farm with above average management, Arch Hurley Conservancy District, Quay County, 2003.
Harvesting dates: June 1 - October 1

ITEM	PRICE	YIELD							TOTAL	
GROSS RETURNS										
BERMUDAGRASS	\$14.00	10.00	AUM						\$140.00	
TOTAL									\$140.00	
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
FERTILIZER (16-4-12-12)	\$0.12	235	LBS	\$28.20					\$28.20	
CANAL WATER: Assessment	\$7.00	1	ACRE	\$7.00					\$7.00	
Water	\$7.00	18	AC. IN.	\$10.50					\$10.50	
MANURE CREDIT	\$1.00	10	AUM	\$10.00					\$10.00	
SUBTOTAL				\$55.70					\$55.70	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL	
HARROW	70 HP	0.10	HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98	
FERT SPREADER	70 HP	0.05	HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58	
DITCHER	70 HP	0.05	HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21	
IRRIGATE (3X)		1.50	HR		\$10.13				\$10.13	
SUBTOTAL		1.70	HR		\$11.64	\$0.96	\$0.74	\$1.56	\$14.90	
OVERHEAD EXPENSES										
DOWNTIME		0.05	HR		\$0.38				\$0.38	
EMPLOYEE BENEFITS					\$2.09				\$2.09	
INSURANCE				\$0.23					\$0.23	
LAND TAXES								\$0.84	\$0.84	
SUPERVISION AND MANAGMENT					\$11.38				\$11.38	
OTHER EXPENSES				\$35.14					\$35.14	
SUBTOTAL		0.05	HR		\$35.37	\$13.85		\$0.84	\$50.05	
TOTAL OPERATING EXPENSES		1.75	HR		\$91.07	\$25.48	\$0.96	\$0.74	\$2.40	\$120.65
NET OPERATING PROFIT									\$19.35	
INTEREST ON OPERATING CAPITAL	(	\$28.28	@	8.00%	)				\$2.26
INTEREST ON EQUIPMENT INVESTMENT									\$1.19	
RETURN TO LAND AND RISK									\$15.89	

BUDGET SUMMARY

GROSS RETURN	\$140.00	
VARIABLE OPERATING EXPENSES	\$92.78	
RETURN OVER VARIABLE EXPENSES	\$47.22	(GROSS MARGIN)
FIXED EXPENSES	\$2.40	
NET FARM INCOME	\$44.83	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$25.48	
NET OPERATING PROFIT	\$19.35	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$3.45	
RETURN TO LAND AND RISK	\$15.89	

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, 2003.
Planting dates: August 15 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<u>PURCHASED INPUTS</u>									
SEED	\$1.65	15 LBS		\$24.75					\$24.75
NITROGEN (N)	\$0.36	30 LBS		\$10.80					\$10.80
PHOSPHATE (P205)	\$0.33	60 LBS		\$19.80					\$19.80
CANAL WATER	\$7.00	8 AC. IN.		\$4.67					\$4.67
SUBTOTAL				\$60.02					\$60.02
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL	
CHISEL	145 HP	0.15 HR		\$1.13	\$1.76	\$1.13	\$2.68	\$6.71	
DISC	145 HP	0.14 HR		\$1.06	\$1.64	\$1.19	\$2.60	\$6.49	
FLOAT	145 HP	0.19 HR		\$1.43	\$2.23	\$1.30	\$2.84	\$7.80	
LISTER	145 HP	0.12 HR		\$0.91	\$1.41	\$0.98	\$2.61	\$5.90	
HARROW	70 HP	0.10 HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98	
DRILL	70 HP	0.18 HR		\$1.36	\$0.86	\$1.07	\$3.27	\$6.56	
FERT SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58	
DITCHER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21	
IRRIGATE (2X)		1.00 HR		\$6.75					\$6.75
SUBTOTAL		1.98 HR		\$14.15	\$8.87	\$6.42	\$15.56	\$45.00	
<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				\$8.82					\$8.82
SUBTOTAL		0.23 HR	0.28	13.12					13.40
TOTAL OPERATING EXPENSES		2.21 HR	\$60.30	\$27.27	\$8.87	\$6.42	\$15.56	\$118.42	

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, 2003.
Harvesting dates: March 1 - June 30 & September 1 - December 1

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
JOSE WHEATGRASS	\$12.00	14.00	AUM OF G RAZING					\$168.00	
TOTAL								\$168.00	
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST			TOTAL	
FERTILIZER (16-4-12-12)	\$0.12	235	LBS	\$28.20				\$28.20	
ESTABLISHMENT: Principal		15	YEARS		\$7.89			\$7.89	
: Interest					\$5.16			\$5.16	
CANAL WATER: Assessment	\$7.00	1	ACRE	\$7.00				\$7.00	
Water	\$7.00	24	AC. IN.	\$14.00				\$14.00	
MANURE CREDIT	\$1.00	14	AUM	\$14.00				\$14.00	
SUBTOTAL				\$63.20	\$13.05			\$76.25	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
HARROW	70 HP	0.10	HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98
FERT SPREADER	70 HP	0.05	HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58
DITCHER	70 HP	0.05	HR		\$0.38	\$0.24	\$0.16	\$0.44	\$1.21
IRRIGATE (4X)		2.00	HR		\$13.50				\$13.50
SUBTOTAL		2.20	HR		15.01	0.96	0.74	1.56	18.28
OVERHEAD EXPENSES									
DOWNTIME		0.04	HR		\$0.28				\$0.28
EMPLOYEE BENEFITS					\$2.70				\$2.70
INSURANCE				\$0.30					\$0.30
LAND TAXES							\$0.84		\$0.84
SUPERVISION AND MANAGEMENT					\$13.84				\$13.84
OTHER EXPENSES				\$35.14					\$35.14
SUBTOTAL		0.04	HR	\$35.44	\$16.82			\$0.84	\$53.09
TOTAL OPERATING EXPENSES		2.24	HR	\$98.64	\$31.83	\$0.96	\$0.74	\$15.45	\$147.62
NET OPERATING PROFIT								\$20.38	
INTEREST ON OPERATING CAPITAL	(	\$32.03	@	8.00%				\$2.56
INTEREST ON EQUIPMENT INVESTMENT								\$1.19	
RETURN TO LAND AND RISK								\$16.63	
BUDGET SUMMARY									
GROSS RETURN		\$168.00							
VARIABLE OPERATING EXPENSES	\$100.34								
RETURN OVER VARIABLE EXPENSES		\$67.66	(GROSS MARGIN)						
FIXED EXPENSES	\$15.45								
NET FARM INCOME		\$52.21	(RETURN TO CAPITAL, LABOR, LAND & RISK)						
LABOR AND MANAGEMENT COST	\$31.83								
NET OPERATING PROFIT		\$20.38	(RETURN TO CAPITAL, LAND & RISK)						
CAPITAL COSTS	\$3.75								
RETURN TO LAND AND RISK		\$16.63							

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, 2003.
 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
GROSS RETURNS				
ASCS DIVERTED (WHEAT)	\$12.00	8.30 AUM		\$99.62
TOTAL				\$99.62

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	TOTAL
SEED	\$0.13	60 LBS	\$7.80	\$7.80
NITROGEN (N)	\$0.36	80 LBS	\$28.80	\$28.80
PHOSPHATE (P205)	\$0.33	20 LBS	\$6.60	\$6.60
CANAL WATER: Assessment	\$7.00	1 ACRE	\$7.00	\$7.00
Water	\$7.00	8 AC. IN.	\$4.67	\$4.67
MANURE	\$1.00	8.30 AUM	\$8.30	\$8.30
SUBTOTAL			\$63.17	\$63.17

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
CHISEL	126 HP	0.15 HR		\$1.13	\$1.76	\$1.13	\$2.68	\$6.71
DISC (2X)	126 HP	0.28 HR		\$2.11	\$3.29	\$2.38	\$5.21	\$12.99
FLOAT	126 HP	0.19 HR		\$1.43	\$2.23	\$1.30	\$2.84	\$7.80
FERT. SPREADER	70 HP	0.05 HR		\$0.38	\$0.24	\$0.29	\$0.67	\$1.58
PRE-IRRIGATE		0.75 HR		\$5.06				\$5.06
LISTER	126 HP	0.12 HR		\$0.91	\$1.41	\$0.98	\$2.61	\$5.90
HARROW	70 HP	0.10 HR		\$0.76	\$0.48	\$0.30	\$0.45	\$1.98
DRILL	70 HP	0.18 HR		\$1.36	\$0.86	\$1.07	\$3.27	\$6.56
DITCHER	70 HP	0.05 HR		\$0.38	\$0.72	\$0.47	\$1.31	\$2.88
IRRIGATE (1X)		0.50 HR		\$3.38				\$3.38
SUBTOTAL		2.37 HR	\$0.00	\$16.89	\$10.99	\$7.92	\$19.04	\$54.85

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	TOTAL
DOWNTIME	0.27 HR		\$2.02	\$2.02
EMPLOYEE BENEFITS			\$3.04	\$3.04
INSURANCE		\$0.34		\$0.34
LAND TAXES				\$0.84
SUPERVISION AND MANAGEMENT			\$9.30	\$9.30
OTHER EXPENSES				\$0.00
SUBTOTAL	0.27 HR	\$0.34	\$14.36	\$15.53

TOTAL OPERATING EXPENSES	2.64 HR	\$63.51	\$31.25	\$10.99	\$7.92	\$19.88	\$133.55
NET OPERATING PROFIT							(\$33.93)
INTEREST ON OPERATING CAPITAL	(	\$36.31	@	8.00%	)		\$2.90
INTEREST ON EQUIPMENT INVESTMENT							\$8.54
RETURN TO LAND AND RISK							(\$45.37)

BUDGET SUMMARY

GROSS RETURN	\$99.62	
VARIABLE OPERATING EXPENSES	\$82.42	
RETURN OVER VARIABLE EXPENSES	\$17.20	(GROSS MARGIN)
FIXED EXPENSES	\$19.88	
NET FARM INCOME	(\$2.68)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$31.25	
NET OPERATING PROFIT	(\$33.93)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$11.44	
RETURN TO LAND AND RISK	(\$45.37)	

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, 2003.

GROSS RETURNS						
NUMBER		\$/CWT	Sale Weight (CWT)	Total (\$)	Guideline Value (\$/Cow)	Guideline Value (\$/AU)
97	YEARLING HEIFERS	\$92.00	7.35	\$65,591	\$260.28	\$187.26
122	YEARLING STEERS	102.00	7.50	93,330	370.36	\$266.45
0	HEIFER CALVES	104.00	4.25	0	0.00	\$0.00
0	STEER CALVES	112.00	4.50	0	0.00	\$0.00
2	BULLS	41.00	16.50	1,353	5.37	\$3.86
23	CULL COWS	38.00	10.00	8,740	34.68	\$24.95
4,188	MANURE	0.13	8.00	4,188	16.62	\$11.96
TOTAL				\$173,203	\$687.31	\$494.49
PURCHASED INPUTS						
NUMBER	PURCHASED INPUTS	Unit	\$/Unit	Total	Guideline Value (\$/Cow)	Guideline Value (\$/AU)
FORAGE:						
1400	JOSE WHEATGRASS	AUM	\$12.00	\$16,800	\$66.67	\$47.96
1000	BERMUDAGRASS	AUM	10.00	\$10,000	39.68	28.55
660	GRAIN SORGHUM	AUM	8.00	\$5,280	20.95	15.07
510	WHEAT	AUM	12.00	\$6,120	24.29	17.47
62	ASCS DIVERSION	AUM	12.00	\$747	2.96	2.13
400	ALFALFA AFTERMATH	AUM	8.00	\$3,200	12.70	9.14
SUBTOTAL				\$42,147	\$167.25	\$120.33
LABOR, FEED, LIVESTOCK:						
5	PROTEIN SUPPLEMENT	TON	\$250	\$1,250	\$4.96	\$3.57
2	SALT & MINERALS	TON	210	420	1.67	1.20
69	HAY	TON	100	6,900	27.38	19.70
0	GRAIN	TON	200	0	0.00	0.00
0	GRAIN CUBES	TON	200	0	0.00	0.00
	FUEL AND REPAIRS	ANNUAL		0	0.00	0.00
	VETERINARY AND MEDICINE	ANNUAL		1,953	7.75	5.58
2	BULLS PURCHASED	HEAD	1300	2,600	10.32	7.42
	LIVESTOCK TAXES	ANNUAL		1,675	6.65	4.78
	MAINTENANCE	ANNUAL		0	0.00	0.00
277	PREGNANCY TEST	HEAD	2	554	2.00	1.58
395	LABOR	HOUR	5	1,975	7.84	5.64
244	BEEF CHECKOFF PROGRAM	HEAD	1	244	0.97	0.70
	MISCELLANEOUS	ANNUAL		0	0.00	0.00
SUBTOTAL				\$17,571	\$69.53	\$50.17
OVERHEAD EXPENSES						
	EMPLOYEE BENEFITS			0	\$0.00	\$0.00
	INSURANCE			0	0.00	0.00
	DEPRECIATION			1,440	5.71	4.11
	SUPERVISION AND MANAGEMENT			8,479	33.65	24.21
	OTHER EXPENSES			4,565	18.11	13.03
SUBTOTAL				\$14,484	\$57.48	\$41.35
TOTAL OPERATING EXPENSES				\$74,202	\$294.45	\$211.84
NET OPERATING PROFIT				\$99,000	\$392.86	\$282.64
CAPITAL COST						
	INTEREST ON OPERATING CAPITAL			2,089	8.29	5.96
	INTEREST ON MACHINERY AND IMPROVEMENTS			2,242	8.90	6.40
	INTEREST ON LIVESTOCK			29,487	117.01	84.18
TOTAL CAPITAL COST				33,818	134.20	96.55
RETURN TO RISK				\$65,183	258.66	186.09
BUDGET SUMMARY						
GROSS RETURN					\$173,203	
VARIABLE OPERATING EXPENSES				\$59,718		
RETURN OVER VARIABLE EXPENSES					\$113,484	
FIXED EXPENSES				\$6,005		
NET FARM INCOME					\$107,480	
LABOR AND MANAGEMENT COST				\$8,479		
NET OPERATING PROFIT					\$99,000	
CAPITAL COST				\$33,818		
RETURN TO LAND AND RISK					\$65,183	

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 FLOOD	BERMUDA PASTURE	JOSE WHEAT EST.	GRASS PASTURE
PRIMARY YIELD	8.30		2.00	25.00	27.00	10.00		14.00
PRIMARY PRICE	12.00		140.00	3.45	4.39	14.00		12.00
GOVERNMENT PAYMENTS	0.00		0.00	13.00	16.88	0.00		0.00
SECOND INCOME	0.00		32.00	48.00	32.00	0.00		0.00
GROSS RETURN	\$99.62		\$312.00	\$147.25	\$167.41	\$140.00		\$168.00
CASH OPERATING EXPENSES								
SEED	\$7.80	\$57.20		\$7.80	\$8.40		\$24.75	
FERTILIZER	\$43.70	\$30.60	\$23.80	\$39.40	\$39.40	\$38.20	\$30.60	\$42.20
CHEMICALS				\$15.07	\$15.97			
CROP INSURANCE				\$0.39	\$0.30			
OTHER PURCHASED INPUTS			\$6.68					
CANAL WATER	\$11.67	\$4.67	\$21.00	\$16.33	\$16.33	\$17.50	\$4.67	\$21.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$10.99	\$8.39	\$17.50	\$13.58	\$15.59	\$0.96	\$8.87	\$0.96
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			\$0.84	\$0.84	\$0.84	\$0.84		\$0.84
OTHER EXPENSES	\$0.34	\$0.29	\$35.78	\$35.67	\$35.62	\$35.37	\$0.28	\$35.44
TOTAL CASH EXPENSES	\$82.42	\$107.27	\$120.60	\$140.42	\$146.14	\$93.61	\$75.59	\$101.18
RETURN OVER CASH EXPENSES	\$17.20	(\$107.27)	\$191.40	\$6.83	\$21.26	\$46.39	(\$75.59)	\$66.82
FIXED EXPENSES	\$19.88	\$15.12	\$76.29	\$40.72	\$50.29	\$1.56	\$15.56	\$14.61
TOTAL EXPENSES	\$102.30	\$122.38	\$196.89	\$181.13	\$196.44	\$95.17	\$91.15	\$115.79
NET FARM INCOME	(\$2.68)	(\$122.38)	\$115.11	(\$33.88)	(\$29.03)	\$44.83	(\$91.15)	\$52.21
LABOR AND MANAGEMENT COSTS	\$31.25	\$30.16	\$65.76	\$46.55	\$45.70	\$25.48	\$27.27	\$31.83
NET OPERATING PROFIT	(\$33.93)	(\$152.54)	\$49.36	(\$80.44)	(\$74.73)	\$19.35	(\$118.42)	\$20.38
CAPITAL COSTS								
INTEREST ON OPERATING CAPITAL	\$2.90		\$2.30	\$3.57	\$3.71	\$2.26		\$2.56
INTEREST ON EQUIPMENT INVESTMENT	\$8.54		\$31.36	\$21.29	\$26.10	\$1.19		\$1.19
ASCS ACR (SET ASIDE)				\$4.54	\$4.54			
TOTAL CAPITAL COSTS	\$11.44	\$0.00	\$33.66	\$29.40	\$34.35	\$3.45	\$0.00	\$3.75
RETURN TO LAND AND RISK	(\$45.37)	(\$152.54)	\$15.69	(\$109.83)	(\$109.08)	\$15.89	(\$118.42)	\$16.63

Table 14. Whole Farm Summary, Arch Hurley Conservancy District,
Quay County, 2002.

GROSS RETURNS		
ALFALFA HAY	100 ACRES	
CROP		\$25,240
GRAZING		\$3,200
WHEAT	128 ACRES	
CROP		\$11,040
GRAZING		\$6,144
DIRECT PAYMENT		\$1,664
COUNTER CYCLICAL PAYMENT		\$0
GRAIN SORGHUM	165 ACRES	
CROP		\$19,557
GRAZING		\$5,280
DIRECT PAYMENT		\$2,025
COUNTER CYCLICAL PAYMENT		\$0
BERMUDAGRASS	100 ACRES	
CROP		\$14,000
JOSE WHEATGRASS	100 ACRES	
CROP		\$16,800
COUNTER CYCLICAL	8 ACRES	\$747
LIVESTOCK		\$173,203
GROSS RETURN		\$278,900
CASH OPERATING EXPENSES		
FORAGE		\$42,147
FEED AND LIVESTOCK		\$15,596
SEED		\$3,737
FERTILIZER		\$23,210
CHEMICALS		\$4,564
CROP INSURANCE		\$100
OTHER PURCHASED INPUTS		\$668
CANAL WATER		\$10,963
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$6,594
FUEL-IRRIGATION		\$0
REPAIRS		\$5,604
CUSTOM CHARGES		\$0
LAND TAXES		\$496
OTHER EXPENSES		\$25,677
TOTAL CASH EXPENSES		\$139,358
RETURN OVER CASH EXPENSES		\$139,542
FIXED EXPENSES		\$21,473
TOTAL EXPENSES		\$160,831
NET FARM INCOME		\$118,069
LABOR AND MANAGEMENT COSTS		\$37,362
NET OPERATING PROFIT		\$80,707
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$1,803
INTEREST ON EQUIPMENT INVESTMENT		\$10,470
INTEREST ON LIVESTOCK ENTERPRISE		\$33,818
TOTAL CAPITAL COSTS		\$46,091
RETURN TO LAND AND RISK		\$34,616

LAND VALUE	TOTAL INVESTMENT	RETURN TO RISK*	RETURN ON INVESTMENT**
\$200 /ACRE	\$567,937	\$29,496	14.21%
\$300 /ACRE	631,937	26,936	12.77%
\$400 /ACRE	695,937	24,376	11.60%
\$500 /ACRE	759,937	21,816	10.62%
\$600 /ACRE	823,937	19,256	9.80%
\$700 /ACRE	887,937	16,696	9.09%
\$800 /ACRE	951,937	14,136	8.48%
\$900 /ACRE	1,015,937	11,576	7.94%
\$1,000 /ACRE	1,079,937	9,016	7.47%
\$1,100 /ACRE	1,143,937	6,456	7.06%
\$1,200 /ACRE	1,207,937	3,896	6.68%

* 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)