MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA……..	BLACKWATER DRAW AREA, ROOSEVELT COUN
FARM SIZE..……..	960.00 ACRES
IRRIGATION TYPE……..	SPRINKLER
NUMBER OF CROPS…….	4

VERSION 1.0

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TABLE 1. Acreage Summary, Roosevelt County, Projected 2018

BUDGET AREA.....	BLACKWATER DRAW AREA, ROOSEVELT COUNTY
FARM SIZE.....	960 ACRES
IRRIGATION TYPE.....	SPRINKLER
NUMBER OF CROPS...	4

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE AC.IN. PER AC.	WATER USE TOTAL AC.IN.
ALFALFA ESTABLISHMENT	25.00 *	9	225
ALFALFA	125.00	30	3,750
WHEAT	212.50	18	3,825
ARP	0.00		
FLEX IN CORN	37.50	30	1,125
CORN	106.25	30	3,188
ARP	0.00		
FLEX IN CORN	18.75	30	563
PEANUTS	250.00	22	5,500
CORNERS, HOMESTEAD	210.00		
TOTAL	960.00		18,175
ACRE FEET PER ACRE OF WATER RIGHTS			1.58

* DOUBLE-CROPPED

TABLE 2. Basic cost information for the Blackwater Draw area, Roosevelt County, Projected 2018

Item				
Labor Wage Rate:				
Equipment operators		$/hour		$8.55
General & Irrigators		$/hour		$7.50
Purchased Inputs:				
Fertilizer:				
Nitrogen (N)		$/pound		$0.31
Phosphate (P205)		$/pound		$0.24
Seed:				
Wheat		$/pound		$0.44
Corn		$/bag		$240.00
Alfalfa		$/pound		$4.00
Peanuts		$/pound		$1.10
Energy:				
Natural gas (Gas NM)		$/MCF		$3.99
Diesel fuel		$/gallon		$2.70
Gasoline		$/gallon		$2.40
Electricity (SWPS)		cents/KwHr		11.68
LP Gas		$/gallon		$2.75
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		5.50%
Land Interest Rate		percent		5.00%
Equipment Interest Rate		percent		5.50%
Real Interest Rate		percent		3.00%
Land Taxes	$89.00	/acre (full value)		$0.68
Personal Property Tax Rate	- NR	$/$1,000	(Assessed	$23.08
	- R		Value)	$19.78
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 Blackwater Draw area, Roosevelt County, Projected 2018

Item					
Electricity (Domestic & Shop)			$419.10	per month	$5,029
Telephone			$177.80	per month	$2,134
Accounting & Legal					$2,800
Misc. Supplies & Hand Tools					$3,835
Pickup and Auto					
miles	32,703	@	$0.500	per mile	$16,351
Insurance					
- general liability (non-employee)					$2,502
- fire/theft					$2,007
Property Taxes					
- non-planted land					$0
- other than land & machinery					$6,010
Building repairs and maintenance					$1,250
Dues, fees, publications					$457
Farmstead Equipment					$298
				Total	$42,674
		Total Per Planted Acre			$56.90

TABLE 4 Pumping costs and data for irrigation wells. Blackwater Draw area. Roosevelt County
Projected 2000

INPUT DATA

DELIVERY PSI
SPRINKLER 40

DEPTH CHARACTERISTICS:
STATIC..... 120
DRAW DOWN..... 35
TOTAL HEAD..... 155
CASING..... 200

GALLONS PER MINUTE (GPM) 850
WORK HORSEPOWER 49

EFFICIENCY FACTOR:

ELECTRICITY 0 650
NATURAL GAS 0 126
LP GAS 0 126
DIESEL 0 133

FUEL COST PER HOUR
ELECTRICITY 11 68 CENTS/kwhr
NATURAL GAS $3 99 $/MCF
LP GAS $7 75 $/GAL
DIESEL $2 70 $/GAL

PUMPING COSTS

ELECTRIC WELL:
COST PER HOUR $9 82
COST PER ACRE INCH $5 39

NATURAL GAS:
COST PER HOUR $4 56
COST PER ACRE INCH $2 51

LP GAS WELL:
COST PER HOUR $28 91
COST PER ACRE INCH $15 70

DIESEL WELL:
COST PER HOUR $18 25
COST PER ACRE INCH $9 72

TABLE 5 Equipment summary for a 160 acre sprinkle-irrigated farm with above average management. Blackwater Draw area
Projected 2000

EQUIPMENT ITEM & SIZE			ANNUAL USE HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS FUEL, OIL, LUBRICANT	REPAIR	FUEL, OIL PER HR	REPAIR PER HR	FIXED COSTS DEPRECIATION	TAXES	TOTAL PER HR
TRACTOR	140	HP 99WD	867	1	$59 357	$10 396	$7 127	$11	33	$4 954	$279	$13 51
TRACTOR	185	HP 99WD	766	1	$63 057	$21 417	$4 551	$27	97	$5 99	$363	$8 66
PLANTER	8	ROW	50	1	$5 500		$131			$1 03	$42	$13 09
ROLL-PACKER	12	FT	43	1	$1 950		$3			$0 09	$19	$3 32
CULTIVATOR	6	ROW	129	1	$9 000		$896			$7 44	$69	$8 57
DISC	21	FT	129	1	$9 000		$896			$7 44	$69	$8 57
CHISEL	21	FT	81	1	$1 950		$149			$2 05	$13	$2 62
FLOAT	12	FT	7	1	$1 800		$1			$0 09	$2	$0 11
DRILL	21	FT	21	1	$3 600		$11			$1 72	$25	$11 48
LISTER	6	ROW	111	1	$3 200		$642			$3 97	$25	$4 05
PLOW (MOLDBOARD	5-14	IN	127	1	$5 100		$810			$5 32	$39	$5 97
RANT			50	1	$3 400		$16			$0 96	$343	$24 $7 32
FERT SPREADER DLR FRN												
SPRAYER (MTD)			0	0	$0		$0			$0 00	$0	$0 $0 00
DIG AND INVERT	4	ROW	60	1	$1 350		$3			$0 05	$167	$13 $2 64
COMBINE PEANUTS	185	HP	100	1	$63 000		$1			$0 00	$0	$0 $0 00
SWATHER	14	FT SP	100	1	$3 900	$1 011	$56	$10	11	$0 59	$1 202	$113 $3 63
BALER	1	TON	44	1	$36 795		$76			$1 79	$9 912	$335 $14 50
FRONT END LOADER (MTD)			100	1	$3 500		$1			$0 00	$0	$0 $0 00
PEANUT THRASHER			260	1	$29 900		$232			$1 16	$3 867	$223 $5 05
PEANUT TRAILER			60	1	$3 500		$13			$0 14	$467	$27 $0 34
CENTER PIVOT SPRINKLER			0 677	2	$20 000		$0			$0 00	$0 00	$151 $0 41
ELECTRIC WELL			0 677	2	$29 200	$56 042	$19 354	$9	92	$2 00	$2 339	$225 $9 26
						$254 123	$129 727	$29 $32			$34 361	$2 $59

EQUIPMENT LIST

ITEM			NEW VALUE	USED VALUE	YEARS LIFE	EQUIP HOUR	MAX HOURS	FUEL LB/GAL	ALVAGE HOUR	ACCUM HOURS	AGE	INTEREST EXPENSE
TRACTOR	140	HP MWD	72515 00	39056 50	15 00		1 00	600 00	7 10	0 33	6326 19	13 00 $994 34
TRACTOR	185	HP MWD	76059 00	43956 50	15 00		1 00	600 00	9 42	0 33	6423 39	11 00 $902 28
PLANTER	8	ROW	11000 00	5500 00	10 00		8 00	100 00			643 90	13 00 $53 50
ROLL-PACKER	12	FT	2600 00	1950 00	10 00		3 00	300 00			1282 00	13 00 $106 50
CULTIVATOR	6	ROW	9000 00	4000 00	15 00		3 00	500 00			2320 00	16 00 $220 00
DISC	21	FT	12000 00	6000 00	15 00		3 00	300 00			2360 00	16 00 $330 00
CHISEL	21	FT	2600 00	1950 00	15 00		3 00	300 00			1282 00	16 00 $176 00
FLOAT	12	FT	800 00	500 00	15 00		4 00	200 00			71 26	15 00 $5 93
DRILL	21	FT	7200 00	3600 00	10 00		8 00	100 00			308 76	13 00 $66 00
LISTER	6	ROW	6400 00	3200 00	15 00		3 00	300 00			1762 00	16 00 $176 00
PLOW (MOLDBOARD	5-14	IN	10200 00	5100 00	15 00		3 00	300 00			2030 00	16 00 $280 50
RANT			6800 00	3400 00	20 00		6 00	500 00			750 00	17 00 $37 50
FERT SPREADER DLR FRN												17 00
SPRAYER (MTD)	16	FT	2800 00	1400 00	15 00		8 00	150 00			0 00	15 00 $7 00
DIG AND INVERT	4	ROW	2700 00	1350 00	15 00		3 00	300 00			1282 00	16 00 $132 00
ROD WEEDER	6	ROW	1250 00	625 00	15 00		3 00	300 00			345 00	15 00 $4 38
SWATHER	14	FT SP	29000 00	3600 00	20 00		2 00	600 00	3 12	0 25	1400 00	14 00 $97 50
BALER	1	TON	9200 00	3600 00	15 00		2 00	600 00			1400 00	15 00 $97 50
FRONT END LOADER (MTD)			5100 00	2550 00	15 00		2 00	300 00			1282 76	15 00 $48 38
PEANUT THRASHER			68000 00	29000 00	15 00		2 00	300 00			3000 00	15 00 $300 00
PEANUT TRAILER			7000 00	3500 00	15 00		4 00	300 00			1387 00	15 00 $92 50
CENTER PIVOT SPRINKLER			35000 00	15000 00	15 00		0 00	8742 00			72877 26	15 00 $25 00
ELECTRIC WELL			29000 00	14800 00	20 00		2 00	8742 00	26 00	26 00	10561 76	20 00 $10 00

USAGE LIST

ALFALFA EST	ALFALFA EST	WHEAT	CORN	PEANUTS	PER ACRE TOTALS
hours per acre					
0 34	1 70	0 10	0 09	0 62	3 01
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 12	0 12	0 24
				0 17	0 17
0 00	0 00	0 00	0 50	0 00	0 50
0 38	0 00	0 00	0 38	0 38	0 74
			0 2	0 26	0 46
0 19	0 00	0 00	0 00	0 00	0 19
0 32	0 00	0 10	0 00	0 00	0 42
0 32	0 00	0 10	0 00	0 00	0 42
0 39	0 00	0 00	0 28	0 28	0 67
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 24	0 24	0 48
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
0 00	1 25	0 00	0 00	0 00	1 25
0 00	0 00	0 00	0 00	0 00	0 00
0 00	0 00	0 00	0 00	0 00	0 00
4 79	10 97	9 58	10 97	12 91	61 23
4 79	15 97	9 58	15 97	14 91	61 23

INTEREST PRORATION

ALFALFA EST	ALFALFA EST	WHEAT	CORN	PEANUTS
dollars per acre				
6 97	0 41	2 25	2 54	
1 18	0 00	0 66	7 11	
0 00	0 00	0 73	0 73	
0 00	0 00	0 00	0 00	
0 00	0 00	0 64	0 54	
0 00	0 00	0 44	0 97	
0 00	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
0 00	0 00	0 61	0 61	
1 50	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
0 00	0 00	0 21	0 00	
6 39	0 00	0 00	0 00	
0 00	0 00	0 00	0 00	
1 12	0 00	0 00	0 00	
0 00	0 00	0 00	6 39	
0 00	0 00	0 00	0 77	
1 36	0 00	1 36	1 37	
1 50	2 80	1 39	2 00	
39 02	3 96	12 01	23 12	

ALFALFA ESTABLISHMENT ACRES: 25 PUMP WATER: 9 00

ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	185 HP	1 00	0 09	0 09	
PLOW	185 HP	1 00	0 28	0 28	
FLOAT	185 HP	1 00	0 09	0 09	
FERT SPREADER	140 HP	1 00	0 09	0 09	
DISC	185 HP	1 00	0 09	0 09	
PRE-IRRIGATE		1 00	0 16	1 00	
SEED	140 HP	1 00	0 09	0 09	
IRRIGATE (24)		2 00	0 35	3 29	

ALFALFA HAY ACRES: 125 PUMP WATER: 30 00

ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
IRRIGATE		14 00	0 52	28 97	
FERT SPREADER	140 HP	1 00	0 09	0 09	
SWATHER (DS)	3 P	5 00	0 16	0 80	
RAKE (DS)	185 HP	5 00	0 07	0 35	
BALER (DS)	185 HP	5 00	0 07	0 35	
FRONT END LOADER (DS)	140 HP	5 00	0 25	1 25	

WHEAT ACRES: 212 5 PUMP WATER: 18 00

ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	185 HP	0 00	0 09	0 00	
PLOW	185 HP	0 00	0 28	0 00	
DISC	185 HP	0 00	0 09	0 00	
FERT SPREADER	140 HP	0 00	0 05	0 00	
FLOAT	140 HP	0 00	0 09	0 00	
SEED	140 HP	0 00	0 09	0 00	
IRRIGATE (17/I)		17 00	0 52	8 59	

COMBINE (CUSTOM) PER BUSHEL 0 27
PER BUSHEL OVER 30 0 19
HAUL (CUSTOM) PER BUSHEL 0 18

CORN FOR GRAIN ACRES: 162 5 PUMP WATER: 30 00

ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC (2X)	185 HP	2 00	0 09	0 18	
PLOW	185 HP	1 00	0 28	0 28	
DISC (2X)	185 HP	2 00	0 09	0 18	
FERT SPREADER	140 HP	1 00	0 05	0 05	
PRE-IRRIGATE		3 00	0 11	0 33	
SEED	185 HP	1 00	0 09	0 09	
ROD WEED	185 HP	1 00	0 09	0 09	
PLANTER	185 HP	1 00	0 12	0 12	
SAND PURROW (S5)	140 HP	5 00	0 10	0 50	
IRRIGATE (12/I)		12 00	0 43	12 78	

COMBINE (CUSTOM) PER CWT 0 35
HAUL (CUSTOM) PER CWT 0 18

PEANUTS ACRES: 260 PUMP WATER: 22 00

ACCOMPLISHMENT

MACHINE	POWER UNIT	TIMES OVER	RATE	TOTAL	CUSTOM
DISC	185 HP	2	0 09	0 18	
PLOW	185 HP	1	0 28	0 28	
DISC	185 HP	2	0 09	0 18	
FERT SPREADER	140 HP	1	0 05	0 05	
SPRAY & DISC	185 HP	0	0 12	0 00	
PRE-IRRIGATE		3	0 11	0 33	
LISTE	185 HP	3	0 09	0 27	
PLANTER	185 HP	1	0 12	0 12	
CULTIVATOR (CUSTOM)					27 00
CULTIVATOR (DS)	140 HP	2	0 10	0 20	
HAND HOE (CUSTOM)					10 00
IRRIGATE (7/I)		7	0 37	8 33	

DIG AND INVERT 185 HP 1 0 16 0 24
COMBINE PEANUTS 185 HP 1 0 80 0 80
HAUL 185 HP 1 0 37 0 37

POSTHARVEST OPERATIONS PUMP WATER: 9 00

BROADCAST WHEAT				
ROLL-PACKER	140 HP	1	0 17	0 17
IRRIGATE (9/I)		9	0 62	3 14

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
0	0 000000	0 000020	0 000039	0 000026	0 000080	0 000146	0 000199	0 000240	0 000300
50	0 000000	0 000020	0 000020	0 000030	0 000080	0 000140	0 000193	0 000233	0 000293
100	0 000000	0 000020	0 000020	0 000030	0 000140	0 000230	0 000320	0 000380	0 000300
150	0 000030	0 000030	0 000140	0 000040	0 000140	0 000260	0 000110	0 000410	0 000240
200	0 000030	0 000060	0 000260	0 000260	0 000230	0 000160	0 000140	0 000030	0 000400
250	0 000030	0 000060	0 000260	0 000260	0 000230	0 000160	0 000140	0 000030	0 000400
300	0 000030	0 000070	0 000260	0 000160	0 000080	0 000370	0 000170	0 000800	0 000600
350	0 000030	0 000090	0 000260	0 000120	0 000160	0 000360	0 000260	0 000960	0 000630
400	0 000030	0 000090	0 000260	0 000120	0 000160	0 000360	0 000260	0 000960	0 000630
450	0 000030	0 000120	0 000320	0 000160	0 000360	0 000430	0 000210	0 000960	0 000960
500	0 000030	0 000120	0 000320	0 000160	0 000370	0 000490	0 000230	0 001020	0 000600
1000	0 000030	0 000120	0 000320	0 000160	0 000370	0 000490	0 000230	0 001020	0 000600
1200	0 000030	0 000120	0 000320	0 000160	0 000360	0 000490	0 000230	0 001176	0 000765
1400	0 000030	0 000170	0 000320	0 000230	0 000430	0 000630	0 000410	0 001260	0 000765
1500	0 000100	0 000170	0 000320	0 000230	0 000430	0 000630	0 000410	0 001260	0 000765
1600	0 000100	0 000190	0 000356	0 000260	0 000490	0 000626	0 000176	0 001239	0 000806
1800	0 000100	0 000190	0 000356	0 000260	0 000490	0 000626	0 000176	0 001239	0 000806
2000	0 000110	0 000206	0 000356	0 000306	0 000606	0 000848	0 000310		
2500	0 000259								
3000	0 000259								
3500	0 000302								
4000	0 000396								
4500	0 000396								
5000	0 000120								
5500	0 000136								
6000	0 000136								
6500	0 000140								
7000	0 000140								
7500	0 000206								
8000	0 000206								

* Based on unpublished data of D R Yoest Department of Agricultural Engineering University of Illinois

** Based on "Agricultural Machinery Data" in Agricultural Engineers Yearbook 1983

Codes

1 tractors
2 balers, combiners, forage harvesters windrowers, pickups
3 rotary hoe disks, moldboard plows, chisels, field cultivators, row cultivators, lister planter
4 mowers, sprayers, floats, roto buck, drag, roller, seller farmer, feed shaper
5 belowgivers, cotton pickers, cotton strippers, corn pickers
6 hammermills, pto powered, rotary mowers, stalk choppers, feed augers, farm trucks
7 stalks, cultivator mower
8 planter, drills, manure spreader
9 general repair, working equipment mounted sprayers
10 Brisbon distributing equipment

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 960 acre farm with above average management, Roosevelt County, Projected 2018

Planting Dates: August 15 - August 30

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
PURCHASED INPUTS								
SEED	$4.00	20 LBS	$80.00					$80.00
NITROGEN (N)	$0.31	40 LBS	$12.40					$12.40
PHOSPHATE (P2O5)	$0.24	60 LBS	$14.40					$14.40
PUMP WATER*		9 AC. IN.						
SUBTOTAL			$106.80					$106.80

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.09 HR		$0.77	$2.52	$1.18	$1.37	$5.84
PLOW	185 HP	0.29 HR		$2.48	$8.11	$3.47	$4.16	$18.23
FLOAT	140 HP	0.19 HR		$1.62	$4.01	$0.83	$4.25	$10.72
FERT SPREADER	140 HP	0.05 HR		$0.43	$1.05	$0.22	$0.53	$2.23
DISC	185 HP	0.09 HR		$0.77	$2.52	$1.18	$1.37	$5.84
PRE-IRRIGATE		0.10 HR		$0.75	$15.85	$3.19	$1.12	$20.92
DRILL	140 HP	0.10 HR		$0.86	$2.11	$0.61	$4.20	$7.77
IRRIGATE (2X)		0.20 HR		$1.50	$31.71	$6.39	$2.24	$41.84
SUBTOTAL		1.11 HR		$9.18	$67.88	$17.07	$19.25	$113.37
OVERHEAD EXPENSES								
DOWNTIME		0.19 HR		$1.62				$1.62
EMPLOYEE BENEFITS				$1.65				$1.65
INSURANCE			$0.18					$0.18
SUPERVISION AND MANAGEMENT				$8.18				$8.18
SUBTOTAL		0.19 HR	$0.18	$11.46				$11.64
TOTAL OPERATING EXPENSES		1.30 HR	$106.98	$20.63	$67.88	$17.07	$19.25	$231.81

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 960 acre farm with above average management, Blackwater Draw area, Roosevelt County, Projected 2018

Harvest Dates: May 20 - October 15

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
HAY	$185.00	5.20	TONS (STACKED)	$962.00
GRAZING	$50.00	1.00	ACRE	$50.00
TOTAL				$1,012.00

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
PHOSPHATE (P2O5)	$0.24	150	LBS	$36.00		$36.00
PLASTIC TWINE	$19.15	884	FT	$4.23		$4.23
INSECTICIDE (CUSTOM)	$20.01	1	X/ACRE	$20.01		$20.01
HERBICIDE (CUSTOM)	$16.96	1	X/ACRE	$16.96		$16.96
ESTABLISHMENT: Principal		5	YEARS		$46.36	$46.36
: Interest					$7.26	$7.26
PUMP WATER*		30	AC. IN.			
SUBTOTAL				$77.20	$53.63	$130.83

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE		1.00	HR		$7.50	$158.53	$31.95	$11.21	$209.18
FERT SPREADER	140 HP	0.05	HR		$0.43	$1.05	$0.22	$0.53	$2.23
SUBTOTAL		1.05	HR		$7.93	$159.58	$32.16	$11.74	$211.41
HARVEST OPERATIONS									
SWATHER (5X)	S.P.	0.80	HR		$6.84	$8.09	$0.46	$12.49	$27.88
RAKE (5X)	140 HP	0.40	HR		$3.42	$8.44	$2.12	$7.13	$21.11
BALER (5X)	185 HP	0.35	HR		$2.99	$9.79	$2.59	$52.21	$67.59
FRONT END LOADER (5X)	140 HP	1.25	HR		$10.69	$26.37	$9.39	$15.33	$61.78
SUBTOTAL		2.80	HR	$0.00	$23.94	$52.69	$14.57	$87.17	$178.37
OVERHEAD EXPENSES									
DOWNTIME		0.70	HR		$5.99				$5.99
EMPLOYEE BENEFITS					$5.74				$5.74
INSURANCE				$0.16					$0.16
LAND TAXES								$0.68	$0.68
SUPERVISION AND MANAGEMENT					$73.27				$73.27
OTHER EXPENSES				$56.90					$56.90
SUBTOTAL		0.70	HR	$57.06	$84.99			$0.68	$142.73
TOTAL OPERATING EXPENSES		4.55	HR	$134.26	$116.85	$212.27	$46.73	$153.22	$663.33
NET OPERATING PROFIT									$348.67
INTEREST ON OPERATING CAPITAL		($92.14	@	5.50%)					$5.07
INTEREST ON EQUIPMENT INVESTMENT									$39.02
RETURN TO LAND AND RISK									$304.59

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

BUDGET SUMMARY

GROSS RETURN		$1,012.00	
VARIABLE OPERATING EXPENSES	$393.26		
RETURN OVER VARIABLE EXPENSES		$618.74	(GROSS MARGIN)
FIXED EXPENSES	$153.22		
NET FARM INCOME		$465.52	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$116.85		
NET OPERATING PROFIT		$348.67	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$44.08		
RETURN TO LAND AND RISK		$304.59	

TABLE 8. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 960 acre farm with above average management, Blackwater Draw area, Roosevelt County, Projected 2018

Planting Dates: August 20 - September 15
Harvest Dates: June 1 - June 25

ITEM	PRICE	YIELD		BASE	TOTAL
GROSS RETURNS					
WHEAT	$4.40	60.00	BUSHELS		$264.00
DIRECT PAYMENT	$0.00	60.00	BUSHELS	0.85	$0.00
COUNTER CYCLICAL PAYMENT	$0.00				$0.00
GRAZING	$0.00	1.00	ACRE		$0.00
TOTAL					$264.00

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$0.44	120	LBS	$52.80		$52.80
NITROGEN (N)	$0.31	120	LBS	$37.20		$37.20
PHOSPHATE (P2O5)	$0.24	40	LBS	$9.60		$9.60
INSECTICIDE (CUSTOM)	$20.01	1	X/ACRE	$20.01		$20.01
PUMP WATER*		18	AC. IN.			
CROP INSURANCE	$0.24			$0.24		$0.24
SUBTOTAL				$119.84		$119.84

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
BROADCAST (CUSTOM)				$4.00					$4.00
IRRIGATE (17X)		0.85	HR		$6.38	$95.12	$19.17	$6.73	$127.39
SUBTOTAL		0.85	HR	$4.00	$6.38	$95.12	$19.17	$6.73	$131.39
HARVEST OPERATIONS									
COMBINE (CUSTOM)				$5.97					$5.97
HAUL (CUSTOM)				$9.60					$9.60
SUBTOTAL				$15.57					$15.57
OVERHEAD EXPENSES									
DOWNTI IME		0.00	HR		$0.00				$0.00
EMPLOYEE BENEFITS					$1.15				$1.15
INSURANCE				$0.13					$0.13
LAND TAXES								$0.68	$0.68
SUPERVISION AND MANAGEMENT					$19.33				$19.33
OTHER EXPENSES				$56.90					$56.90
SUBTOTAL		0.00	HR	$57.03	$20.48			$0.68	$78.19
TOTAL OPERATING EXPENSES		0.85	HR	$196.44	$26.85	$95.12	$19.17	$7.41	$344.99
NET OPERATING PROFIT									($80.99)
INTEREST ON OPERATING CAPITAL	(	$89.79	@	5.50%	)				$4.94
INTEREST ON EQUIPMENT INVESTMENT									$2.86
RETURN TO LAND AND RISK									($88.78)

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

BUDGET SUMMARY

GROSS RETURN		$264.00	
VARIABLE OPERATING EXPENSES	$310.72		
RETURN OVER VARIABLE EXPENSES		($46.72)	(GROSS MARGIN)
FIXED EXPENSES	$7.41		
NET FARM INCOME		($54.13)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$26.85		
NET OPERATING PROFIT		($80.99)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$7.79		
RETURN TO LAND AND RISK		($88.78)	

TABLE 9. Corn for grain, sprinkler-irrigated, budgeted per acre costs and returns for a 960 acre farm with above average management, Blackwater Draw area, Roosevelt County, Projected 2018

Planting Dates: April 25 - May 30
Harvest Dates: November 1 - November 30

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
CORN FOR GRAIN	$6.61	100.00 CWT		$660.71
DIRECT PAYMENT	$0.00	100.00 CWT	0.85	$0.00
COUNTER CYCLICAL PAYMENT	$0.00	0.00 CWT		$0.00
GRAZING	$15.00	1.00 ACRE		$15.00
TOTAL				$675.71

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$3.00	24 000	$72.00		$72.00
NITROGEN (N)	$0.31	250 LBS	$77.50		$77.50
PHOSPHATE (P205)	$0.24	80 LBS	$19.20		$19.20
POTASH (K20)	$0.13	40 LBS	$5.00		$5.00
TRACE ELEMENTS	$15.36	1 X/ACRE	$15.36		$15.36
HERBICIDE	$21.24	1 X/ACRE	$21.24		$21.24
INSECTICIDE (CUSTOM)	$24.65	1 X/ACRE	$24.65		$24.65
PUMP WATER*		30 AC. IN.			
CROP INSURANCE	$0.31		$0.31		$0.31
SUBTOTAL			$235.26		$235.26

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC (2X)	185 HP	0.18 HR		$1.54	$5.03	$2.36	$2.75	$11.68
PLOW	185 HP	0.29 HR		$2.48	$8.11	$3.47	$4.16	$18.23
CHISEL (2X)	185 HP	0.20 HR		$1.71	$5.59	$2.40	$2.87	$12.57
FERT SPREADER	140 HP	0.05 HR		$0.43	$1.05	$0.22	$0.53	$2.23
PRE-IRRIGATE (3X)		0.30 HR		$2.25	$31.71	$6.39	$2.24	$42.59
LISTER (3X)	185 HP	0.27 HR		$2.31	$7.55	$2.60	$3.44	$15.90
ROD WEED	185 HP	0.08 HR		$0.68	$2.24	$0.51	$1.24	$4.67
PLANTER	185 HP	0.12 HR		$1.03	$3.36	$1.00	$3.81	$9.19
SAND FURROW (5X)	140 HP	0.50 HR		$4.28	$10.55	$4.66	$7.40	$26.88
IRRIGATE (12X)		1.20 HR		$9.00	$126.82	$25.56	$8.97	$170.35
SUBTOTAL		3.19 HR		$25.70	$202.02	$49.15	$37.40	$314.27
HARVEST OPERATIONS								
COMBINE (CUSTOM)			$35.00					$35.00
HAUL (CUSTOM)			$18.00					$18.00
SUBTOTAL			$53.00					$53.00
OVERHEAD EXPENSES								
DOWNTIME		0.41 HR		$3.51				$3.51
EMPLOYEE BENEFITS				$4.63				$4.63
INSURANCE			$0.51					$0.51
LAND TAXES							$0.68	$0.68
SUPERVISION AND MANAGEMENT				$49.65				$49.65
OTHER EXPENSES			$56.90					$56.90
SUBTOTAL		0.41 HR	$57.41	$57.78			$0.68	$115.87
TOTAL OPERATING EXPENSES		3.60 HR	$345.67	$83.48	$202.02	$49.15	$38.09	$718.40
NET OPERATING PROFIT								($42.69)
INTEREST ON OPERATING CAPITAL		($184.84 @	5.50%)					$10.17
INTEREST ON EQUIPMENT INVESTMENT								$12.33
RETURN TO LAND AND RISK								($65.19)

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

BUDGET SUMMARY

GROSS RETURN		$675.71	
VARIABLE OPERATING EXPENSES	$596.84		
RETURN OVER VARIABLE EXPENSES		$78.87	(GROSS MARGIN)
FIXED EXPENSES	$38.09		
NET FARM INCOME		$40.79	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$83.48		
NET OPERATING PROFIT		($42.69)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$22.50		
RETURN TO LAND AND RISK		($65.19)	

TABLE 10. Peanuts, sprinkler-irrigated, budgeted per acre costs and returns for a 960 acre farm with above average management, Blackwater Draw area, Roosevelt County, Projected 2018
Planting Dates: May 10 - June 10
Harvest Dates: October 10 - November 10

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
PEANUTS	$0.1650	2,700.00	LBS	$445.50
TOTAL				$445.50

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
SEED (PEANUT)	$1.10	100	LB	$110.00		$110.00
NITROGEN (N)	$0.31	70	LB	$21.70		$21.70
PHOSPHATE (P205)	$0.24	80	LB	$19.20		$19.20
POTASH (K2O)	$0.14	30	LB	$4.05		$4.05
TRACE ELEMENTS & MANURE	$11.14	1	X/ACRE	$41.14		$41.14
HERBICIDE	$21.18	1	X/ACRE	$21.18		$21.18
INSECTICIDE (CUSTOM)	$16.96	1	X/ACRE	$16.96		$16.96
FUNGICIDE	$25.00	1	X/ACRE	$25.00		$25.00
PUMP WATER		28	AC. IN.			
SUBTOTAL				$259.23		$259.23

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC (2X)	185 HP	0.18	HR		$1.54	$5.03	$2.36	$2.75	$11.68
PLOW	185 HP	0.29	HR		$2.48	$8.11	$3.47	$4.16	$18.23
CHISEL (2X)	185 HP	0.20	HR		$1.71	$5.59	$2.40	$2.87	$12.57
FERT SPREADER	140 HP	0.05	HR		$0.43	$1.05	$0.22	$0.53	$2.23
SPRAY & DISC	185 HP	0.00	HR		$0.00	$0.00	$0.00	$0.00	$0.00
PRE-IRRIGATE		0.30	HR		$2.25	$44.39	$7.03	$2.47	$56.13
LISTER	185 HP	0.27	HR		$2.31	$7.55	$2.60	$3.44	$15.90
PLANTER	185 HP	0.12	HR		$1.03	$3.36	$1.00	$3.81	$9.19
APPLY FUNGICIDE (CUSTOM)				$27.00					$27.00
CULTIVATOR (2X)	140 HP	0.20	HR		$1.71	$4.22	$1.86	$2.96	$10.75
HAND HOE (CUSTOM)				$10.00					$10.00
IRRIGATE (7X)		0.70	HR		$5.25	$103.57	$16.40	$5.75	$130.98
SUBTOTAL		2.31	HR	$37.00	$18.70	$182.88	$37.33	$28.73	$304.64
HARVEST OPERATIONS									
DIG AND INVERT	185 HP	0.24	HR		$2.05	$6.71	$13.69	$2.79	$25.25
COMBINE PEANUTS	185 HP	0.80	HR		$6.84	$22.37	$5.45	$23.30	$57.97
HAUL	140 HP	0.37	HR		$3.16	$7.81	$1.66	$5.86	$18.49
SUBTOTAL		1.41	HR	$0.00	$12.06	$36.89	$20.81	$31.95	$101.71
OVERHEAD EXPENSES									
DOWNTIME		0.68	HR		$5.81				$5.81
EMPLOYEE BENEFITS					$5.54				$5.54
INSURANCE				$0.62					$0.62
LAND TAXES								$0.68	$0.68
SUPERVISION AND MANAGEMENT					$33.55				$33.55
OTHER EXPENSES				$56.90					$56.90
SUBTOTAL		0.68	HR	$57.51	$44.90			$0.68	$103.09
TOTAL OPERATING EXPENSES		4.40	HR	$353.74	$75.65	$219.78	$58.14	$61.37	$768.68
NET OPERATING PROFIT									($323.18)
INTEREST ON OPERATING CAPITAL		($189.48	@	5.50%)					$10.42
INTEREST ON EQUIPMENT INVESTMENT									$23.13
RETURN TO LAND AND RISK									($356.73)

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

BUDGET SUMMARY

GROSS RETURN		$445.50	
VARIABLE OPERATING EXPENSES	$631.65		
RETURN OVER VARIABLE EXPENSES		($186.15)	(GROSS MARGIN)
FIXED EXPENSES	$61.37		
NET FARM INCOME		($247.53)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$75.65		
NET OPERATING PROFIT		($323.18)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$33.55		
RETURN TO LAND AND RISK		($356.73)	

TABLE 11. Summary of per acre costs and returns for a 960 acre farm with above average management, Blackwater Draw area, Roosevelt County, Projected 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY	WHEAT	CORN	PEANUTS
		TONS	BU	CWT	LBS
PRIMARY YIELD		5.20	60.00	100.00	2,700.00
PRIMARY PRICE		$185.00	$4.40	$6.61	$0.17
GOVERNMENT PAYMENTS		$0.00	$0.00	$0.00	$0.00
SECOND INCOME		$50.00	$0.00	$15.00	$0.00
GROSS RETURN		$1,012.00	$264.00	$675.71	$445.50
CASH OPERATING EXPENSES					
SEED	$80.00		$52.80	$72.00	$110.00
FERTILIZER	$26.80	$36.00	$46.80	$117.06	$44.95
CHEMICALS		$36.97	$20.01	$45.89	$63.14
CROP INSURANCE			$0.24	$0.31	
OTHER PURCHASED INPUTS					$41.14
CANAL WATER					
FUEL, OIL & LUBRICANTS-EQUIPMENT	$20.32	$53.75	$0.00	$43.49	$71.82
FUEL-IRRIGATION	$47.56	$158.53	$95.12	$158.53	$147.96
REPAIRS	$17.07	$46.73	$19.17	$49.15	$58.14
CUSTOM CHARGES			$19.57	$53.00	$37.00
LAND TAXES	$0.00	$0.68	$0.68	$0.68	$0.68
OTHER EXPENSES	$0.18	$57.06	$57.03	$57.41	$57.51
TOTAL CASH EXPENSES	$191.93	$389.71	$311.41	$597.53	$632.34
RETURN OVER CASH EXPENSES	($191.93)	$622.29	($47.41)	$78.19	($186.84)
FIXED EXPENSES	$19.25	$152.53	$6.73	$37.40	$60.69
TOTAL EXPENSES	$211.18	$542.25	$318.13	$634.93	$693.03
NET FARM INCOME	($211.18)	$469.75	($54.13)	$40.79	($247.53)
LABOR AND MANAGEMENT COSTS	$20.63	$116.85	$26.85	$83.48	$75.65
NET OPERATING PROFIT	($231.81)	$352.90	($80.99)	($42.69)	($323.18)
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL	$0.00	$5.07	$4.94	$10.17	$10.42
INTEREST ON EQUIPMENT INVESTMENT	$0.00	$39.02	$2.86	$12.33	$23.13
TOTAL CAPITAL COSTS	$0.00	$44.08	$7.79	$22.50	$33.55
RETURN TO RISK	($231.81)	$308.82	($88.78)	($65.19)	($356.73)
Flex Computation			-79.20	-15.45	

TABLE 12. Whole farm summary, Blackwater Draw area, Roosevelt County, Projected 2018

GROSS RETURNS				
ALFALFA HAY	125.00	ACRES		
CROP			$120,250	
GRAZING			$6,250	
WHEAT	212.50	ACRES		
CROP			$56,100	
GRAZING			$0	
DIRECT PAYMENT			$0	
COUNTER CYCLICAL PAYMENT			$0	
CORN FOR GRAIN	162.50	ACRES		
CROP			$107,366	
GRAZING			$2,438	
DIRECT PAYMENT			$0	
COUNTER CYCLICAL PAYMENT			$0	
PEANUTS	250.00	ACRES		
CROP			$111,375	
GROSS RETURN				$403,779
CASH OPERATING EXPENSES				
SEED			$52,420	
FERTILIZER			$45,375	
CHEMICALS			$32,115	
CROP INSURANCE			$100	
OTHER PURCHASED INPUTS			$10,284	
CANAL WATER			$0	
FUEL, OIL & LUBRICANTS-EQUIPMENT			$32,247	
FUEL-IRRIGATION			$103,968	
REPAIRS			$32,863	
CUSTOM CHARGES			$22,021	
LAND TAXES			$514	
OTHER EXPENSES			$42,963	
TOTAL CASH EXPENSES				$374,869
RETURN OVER CASH EXPENSES				$28,909
FIXED EXPENSES			$36,431	
TOTAL EXPENSES				$411,300
NET FARM INCOME				($7,522)
LABOR AND MANAGEMENT COSTS			$53,306	
NET OPERATING PROFIT				($60,828)
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL			$5,940	
INTEREST ON EQUIPMENT INVESTMENT			$13,271	
TOTAL CAPITAL COSTS				$19,211
RETURN TO RISK				($80,039)

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
$500 /ACRE	($94,439)	-8.29%
$750 /ACRE	($101,639)	-6.24%
$1,000 /ACRE	($108,839)	-5.01%
$1,250 /ACRE	($116,039)	-4.18%
$1,500 /ACRE	($123,239)	-3.59%
$1,750 /ACRE	($130,439)	-3.14%
$2,000 /ACRE	($137,639)	-2.80%

* 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)