MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA……..	VIRDEN AREA, HIDALGO COUNT Projected 2018
FARM SIZE…….....	200.00 ACRES
IRRIGATION TYPE……	FLOOD
NUMBER OF CROPS……	4

VERSION 1.0

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TABLE 1. Acreage Summary, Hidalgo County, Projected 2018

BUDGET AREA……	VIRDEN AREA, HIDALGO COUNTY
FARM SIZE……	200 ACRES
IRRIGATION TYPE……	FLOOD
NUMBER OF CROPS…	4

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE AC. IN. PER ACRE	WATER USE TOTAL AC. IN.
ALFALFA ESTABLISHMENT *	15.00	20	300
ALFALFA	45.00	54	2,430
CORN SILAGE	25.00	50	1,250
COTTON	68.00	36	2,448
ARP	0.00		
FLEX IN CORN SILAGE	12.00	36	432
GRAIN SORGHUM	34.00	40	1,360
ARP	0.00		
FLEX IN CORN SILAGE	6.00	36	216
ROADS, DITCHES	10.00		
TOTAL	200.00		8,436
ACRE FEET PER ACRE OF WATER RIGHTS			3.52

* DOUBLE-CROPPED

TABLE 2. Basic cost information for the Virden area, Hidalgo 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:				
Alfalfa		$/pound		$4.00
Upland Cotton (picker)		$/pound		$7.55
Corn for Silage		$/bag		$240.00
Grain Sorghum		$/pound		$1.32
Canal Water		$/acre		$45.00
Wire:		$/lb.		$1.32
Energy:				
Diesel fuel		$/gallon		$2.70
Gasoline		$/gallon		$2.40
Electricity		cents/KwHr		8.45
LP Gas		$/gallon		$2.85
Employee Liability Insurance		$/$1000 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	$348.00	/acre (full value)		$2.57
Personal Property Tax Rate	- NR	$/$1,000	(Assessed	$22.15
	- R		Value)	$19.07
Supervision Factors				
Field Crop-Irrigation		$/labor hour		$1.00
Field Crop-Equipment		$/labor hour		$0.50
Management Rate		percent		7.00%

TABLE 3. Overhead cost information for Virden area, Hidalgo County, Projected 2018

Item					
Electricity (Domestic & Shop)			$190.50	per month	$2,286
Telephone			$101.60	per month	$1,219
Accounting & Legal					$1,257
Misc. Supplies & Hand Tools					$1,803
Pickup and Auto					
miles	19,050	@	$0.500	per mile	$9,525
Insurance					
- general liability (non-employee)					$1,524
- fire/theft					$1,168
Property Taxes					
- non-planted land					$0
- other than land & machinery					$6,010
Building repairs and maintenance					$1,029
Dues, fees, publications					$368
Farmstead Equipment					$191
				Total	$26,381
			Total per planted acre		$138.85

TABLE 4 Pumping costs and data for irrigation wells Virden area Hidalgo County
Projected 2014

INPUT DATA

DEPTH CHARACTERISTICS:
STATIC..... 50
DRAW DOWN..... 25
TOTAL HEAD..... 75
CASING..... 100

GALLONS PER MINUTE (GPM) 1,500
WORK HORSEPOWER 28

EFFICIENCY FACTOR:
ELECTRICITY 0.540
LP GAS 0.314
DIESEL 0.160

FUEL COST PER UNIT:
ELECTRICITY 8.45 CENTS/kwHr
LP GAS $2.85 $/GAL
DIESEL $2.70 $/GAL

FUEL PUMPING COSTS

ELECTRIC WELL:
COST PER HOUR $3.35
COST PER ACRE INCH $0.31

LP GAS WELL:
COST PER HOUR $14.59
COST PER ACRE INCH $6.40

DIESEL WELL:
COST PER HOUR $8.64
COST PER ACRE INCH $2.31

TABLE 5. Equipment summary for a 260 acre flood-irrigated farm with above average management, Virden area, Hidalgo County,
Projected 2014

EQUIPMENT ITEM & SIZE		ANNUAL 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	65 HP	197.83	1	4,950.00	2,308.44	255.97	11.67	1.29	539.13	79.91	3.13
TRACTOR	126 HP	293.52	1	33 916.50	6 314.74	1 125.99	22.27	3.97	2 647.60	244.33	10.20
PICKUP HAUL	12 TON	170.00	1	19 000.00	2 570.40	129.20	15.12	0.76	3 800.00	140.28	5.98
COTTON PICKER	2 ROW*	64.32	1	9,630.00	1,376.81	603.56	19.38	7.15	1 960.00	100.04	74.60
COTTON TRAILER	8 BALE	170.00	1	3,600.00	363.92	8.16	10.11	0.05	360.00	26.58	2.27
BALER, PTO	2 WIRE	67.26	1	1,600.00		7.28		0.15	280.00	28.43	8.75
PLANTER	6 ROW	37.36	1	3,650.00		60.97		1.63	680.00	25.10	18.87
CHISEL	7 FT	22.20	1	1,200.00		33.03		1.49	160.00	9.86	7.61
DISC	12 FT	55.08	1	2,250.00		153.67		2.79	300.00	16.61	5.75
CULTIVATOR	4 ROW	65.58	1	1,500.00		177.79		1.86	200.00	11.08	2.21
FLOAT	10 FT	38.74	1	650.00		0.54		0.01	48.67	2.58	0.07
ROTOBUCK		27.27	1	1,750.00		116.81		4.28	233.33	13.91	4.28
MULCHER	13 FT	27.27	1	3,750.00		126.81		4.65	500.00	27.88	18.35
LISTER	4 ROW	42.38	1	1,650.00		84.08		1.98	213.33	11.81	5.31
PLOW	3-14 IN	53.61	1	2,550.00		231.00		4.31	448.67	24.72	9.48
SHREDDER	2 ROW	19.72	1	1,250.00		3.94		0.20	166.67	9.23	8.92
COTTON TRAILER	8 BALE	170.00	1	3,600.00		8.16		0.05	360.00	26.58	2.27
FERTILIZER/SEEDER		12.15	1	2,300.00		11.18		0.92	306.67	16.98	29.64
SPRAYER	12 FT	23.80	1	1,575.00		15.71		0.66	210.00	11.63	5.13
ELECTRIC WELL		817.94	1	13,000.00	2,726.41		3.35		660.00	60.40	1.26
				111,822	15,470	3,050			19,438	1,217	

* SHOWN AT ONE-HALF COST TO REFLECT JOINT OWNERSHIP BY TWO INDIVIDUALS

EQUIPMENT LIST

ITEM		NEW VALUE	USED VALUE	YEARS LIFE	EQUIP CODE	MAX HOURS	FUEL UNIT/HR	LUBE COEF	ACCUM HOURS	AGE	INTEREST EXPENSE
TRACTOR	65 HP	21000	4998	40	1	800	4.48	0.10	4114.43	21	593.94
TRACTOR	126 HP	66035	28917	25	1	800	7.50	0.10	5153.36	18	1,820.09
PICKUP HAUL	12 TON	38000	16000	10	2	800	6.00	0.05	2310.00	13	1,065.00
COTTON PICKER	2 ROW*	69400	6430	15	5	300	9.04	0.20	1011.84	12	2 458.92
SWATHER	14 FT SP*	28000	1900	20	2	800	3.12	0.20	916.00	14	767.92
BALER, PTO	2 WIRE	7700	1600	20	2	500			850.50	18	211.76
PLANTER	6 ROW	37000	3650	15	3	300			1,680.00	15	680.00
CHISEL	7 FT	2400	1200	15	3	300			301.03	16	66.69
DISC	12 FT	4500	2250	15	3	300			881.28	16	122.75
CULTIVATOR	4 ROW	3000	1500	15	3	300			1329.28	16	82.50
FLOAT	10 FT	700	450	15	4	300			581.10	15	19.25
ROTOBUCK		3500	1000	15	4	300			230.56	16	51.00
MULCHER	13 FT	7500	3750	15	3	300			409.05	15	206.25
LISTER	4 ROW	3300	1600	15	3	300			678.08	16	88.00
PLOW	3-14 IN	6700	3350	15	3	300			889.76	16	184.25
SHREDDER	2 ROW	2500	1250	20	4	20			1000.00	18	68.75
COTTON TRAILER	8 BALE	2400	1200	20	4	20			1000.00	18	66.00
FERTILIZER/SEEDER		4600	2300	15	9	150			182.25	15	126.50
SPRAYER	12 FT	2750	1375	15	9	150			357.99	16	75.63
ELECTRIC WELL		24000	12000	25	0	8762			12269.08	15	660.00

USAGE LIST

ALFALFA EST	ALFALFA HAY	CORN SILAGE	UPLAND COTTON	GRAIN SORGHUM	TOTAL
---------- hours per acre ----------					
0.46	0.00	0.99	1.42	1.65	4.42
1.55	1.05	1.04	1.60	1.75	6.99
1.13	0.00	0.00	2.50	0.00	2.50
0.00	0.00	0.00	1.24	0.00	1.24
0.00	0.80	0.00	0.00	0.00	0.80
0.00	1.05	0.00	0.00	0.00	1.05
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.20	0.00	0.40	0.60
0.94	0.00	0.94	0.32	0.40	1.40
0.00	0.00	0.42	0.84	0.60	1.86
0.24	0.00	0.24	0.24	0.35	0.97
0.00	0.00	0.09	0.03	0.35	0.37
0.30	0.00	0.15	0.14	0.20	0.79
0.36	0.00	0.38	0.18	0.50	1.22
0.67	0.00	0.00	0.67	0.00	1.34
0.00	0.00	0.00	2.50	0.00	2.50
0.00	0.00	0.00	2.50	0.00	2.50
0.10	0.00	0.05	0.05	0.15	0.35
0.00	0.00	0.00	0.15	0.40	0.55
1.51	5.43	4.22	3.62	3.62	18.40

* SHOWN AT ONE-HALF COST TO REFLECT JOINT OWNERSHIP BY TWO INDIVIDUALS

INTEREST PRORATION:

ALFALFA HAY	CORN SILAGE	UPLAND COTTON	GRAIN SORGHUM
---------- dollars per acre ----------			
1.65	4.26	4.95	
6.91	4.69	10.37	11.73
0.00	0.00	15.37	0.00
0.00	0.00	36.16	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	1.30	1.30	1.25
0.00	0.59	0.83	1.19
0.76	0.76	0.72	0.92
0.00	0.00	0.00	0.00
0.12	0.12	0.12	0.12
0.00	0.34	0.11	0.55
2.27	1.13	1.06	1.51
0.75	0.27	0.37	1.04
2.22	0.00	2.22	0.00
0.00	0.00	1.01	0.00
0.00	0.00	0.00	0.00
1.04	0.52	0.52	1.06
0.00	0.00	0.48	1.27
1.22	3.41	2.92	2.92
16.71	19.27	78.58	26.42

ALFALFA ESTABLISHMENT ACRES: 15 PUMP WATER: 5.00

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
DISC	145 hp	1.00	0.17	0.17	
PLOW	145 hp	1.00	0.67	0.67	
DISC	145 hp	1.00	0.17	0.17	
FLOAT	145 hp	1.00	0.24	0.24	
FERTILIZE	65 HP	1.00	0.05	0.05	
LISTER	65 HP	1.00	0.18	0.18	
MULCHER	145 HP	1.00	0.15	0.15	
SEEDER	65 HP	1.00	0.05	0.05	
MULCHER	145 HP	1.00	0.15	0.15	
LISTER	65 HP	1.00	0.18	0.18	
IRRIGATE (4X)		4.00	0.30	1.51	

ANNUAL ALFALFA ACRES: 45 PUMP WATER: 18.00

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
IRRIGATE (9X)		9.00	0.30	5.43	
SWATH ER (SX)	14 FT	5.00	0.16	0.80	
BALER, PTO (SX)	145 HP	5.00	0.21	1.05	

CORN SILAGE ACRES: 43 PUMP WATER: 14.00

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZE	65 HP	1.00	0.05	0.05	
DISC	145 HP	1.00	0.17	0.17	
CHISEL	145 HP	1.00	0.20	0.20	
DISC	145 HP	1.00	0.17	0.17	
FLOAT	65 HP	1.00	0.24	0.24	
LISTER	65 HP	1.00	0.18	0.18	
PRE-IRRIGATE		1.00	0.04	0.02	
PLANTER	145 HP	1.00	0.25	0.25	
PLANTER	145 HP	1.00	0.36	0.36	
CULTIVATOR (2X)	65 HP	2.00	0.21	0.42	
ROTOBUCK (3X)	145 HP	3.00	0.03	0.09	
IRRIGATE (7X)		7.00	0.26	3.70	

UPLAND COTTON ACRES: 68 PUMP WATER: 12.00

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZE	65 HP	1.00	0.05	0.05	
DISC	145 HP	1.00	0.17	0.17	
PLOW	145 HP	1.00	0.67	0.67	
DISC & SPRAY	145 HP	1.00	0.15	0.15	
FLOAT	65 HP	1.00	0.24	0.24	
LISTER	145 HP	1.00	0.18	0.18	
PRE-IRRIGATE		1.00	0.03	0.02	
PLANTER	145 HP	1.00	0.25	0.25	
PLANTER	145 HP	1.00	0.36	0.36	
CULTIVATOR (4X)	65 HP	4.00	0.21	0.84	
HOEING (CUSTOM)					24.00
ROTOBUCK (3X)	145 HP	1.00	0.03	0.03	
IRRIGATE (8X)		8.00	0.27	3.22	
COTTON PICKER (2X)	2 ROW	2.00	0.62	1.24	
COTTON TRAILER (2X)	HALF TON	2.00	1.25	2.50	
GIN COTTON (CUSTOM) PER UNIT #					0.11
SHREDDER	65 HP	1.00	0.29	0.29	

GRAIN SORGHUM ACRES: 34 PUMP WATER: 12.00

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZE	65 HP	1.00	0.15	0.15	
DISC	145 HP	1.00	0.20	0.20	
CHISEL	145 HP	1.00	0.40	0.40	
DISC	145 HP	1.00	0.20	0.20	
FLOAT	145 HP	1.00	0.25	0.25	
SPRAYER	65 HP	1.00	0.20	0.20	
LISTER	65 HP	1.00	0.50	0.50	
PRE-IRRIGATE		1.00	0.03	0.02	
MULCHER	145 HP	1.00	0.33	0.33	
PLANTER	145 HP	1.00	0.25	0.25	
SPRAYER	65 HP	1.00	0.20	0.20	
CULTIVATOR (2X)	65 HP	2.00	0.30	0.60	
ROTOBUCK (3X)	145 HP	1.00	0.25	0.25	
IRRIGATE (5X)		5.00	0.25	3.02	
COMBINE (CUSTOM) PER CWT					0.42
HAUL (CUSTOM) PER CWT					0.19

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
	*	*	*	*	**	**	**	**	**
0	0.000060	0.000020	0.000620	0.000020	0.000860	0.000140	0.000060	0.000240	0.000200
50	0.000060	0.000020	0.000620	0.000020	0.000860	0.000140	0.000060	0.000240	0.000200
100	0.000060	0.000020	0.000500	0.000020	0.000140	0.000020	0.000300	0.000360	0.000200
200	0.000030	0.000030	0.000400	0.000040	0.000180	0.000030	0.000210	0.000320	0.000260
300	0.000030	0.000050	0.000360	0.000060	0.000250	0.000030	0.000140	0.000430	0.000400
400	0.000030	0.000060	0.000300	0.000080	0.000320	0.000040	0.000120	0.000480	0.000460
500	0.000030	0.000070	0.000360	0.000100	0.000380	0.000070	0.000170	0.000600	0.000520
600	0.000030	0.000090	0.000360	0.000120	0.000360	0.000090	0.000190	0.000660	0.000520
700	0.000030	0.000100	0.000360	0.000130	0.000300	0.000100	0.000200	0.000660	0.000560
800	0.000030	0.000110	0.000320	0.000150	0.000360	0.000430	0.000210	0.000660	0.000560
900	0.000030	0.000120	0.000320	0.000160	0.000370	0.000450	0.000230	0.000330	0.000600
1000	0.000060	0.000130	0.000310	0.000160	0.000360	0.000440	0.000230	0.000370	0.000630
1100	0.000045	0.000135	0.000335	0.000165	0.000405	0.000495	0.000255	0.000315	0.000630
1200	0.000045	0.000170	0.000360	0.000150	0.000405	0.000450	0.000450	0.001260	0.000765
1300	0.000150	0.000170	0.000360	0.000150	0.000405	0.000450	0.000450	0.001260	0.000765
1400	0.000150	0.000180	0.000385	0.000255	0.000465	0.000525	0.000525	0.001230	0.000805
1500	0.000150	0.000180	0.000385	0.000255	0.000465	0.000525	0.000525	0.001230	0.000805
1600	0.000075	0.000170	0.000385	0.000265	0.000485	0.000550	0.000295		
1700	0.000150	0.000265	0.000380	0.000305	0.000505	0.000540	0.000310		
1800	0.000075	0.000265	0.000380	0.000305	0.000505	0.000540	0.000310		
1900	0.000150	0.000265	0.000380	0.000305	0.000505	0.000540	0.000310		
2000	0.000056								
2500	0.000056								
3000	0.000056								
3500	0.000092								
4000	0.000096								
4500	0.000138								
5000	0.000122								
5500	0.000136								
6000	0.000148								
6500	0.000192								
7000	0.000176								
7500	0.000192								
8000	0.000208								

* Based on unpublished data of D. R. Hunt Department of Agricultural Engineering, University of Illinois.

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

Codes:
1 tractors
2 trailers, combines, forage harvesters, windrowers, pickups
3 rotary hoe, disks, moldboard plows, chisels, field cultivators
row cultivators lazer plane
4 harrows, wagons, floats, roto buck, drag, roller, water furrow, bed shaper
5 bailewagons cotton pickers cotton strippers corn pickers
corn heads, forage equipment, rotary mowers, stalk choppers, feed wagons, farm trucks
6 hay conditioners, rakes
7 baler w/ engine, manure spreader
8 planters, drills, seeding equipment, mounted sprayers
9 fertilizer distributing equipment

TABLE 6. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 200 acre farm with above average management, Virden area, Hidalgo County, Projected 2018

Planting dates: August 15 - October 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS	TOTAL
PURCHASED INPUTS				
SEED	$4.00	25 LBS	$100.00	$100.00
NITROGEN (N)	$0.31	20 LBS	$6.20	$6.20
PHOSPHATE (P2O5)	$0.24	50 LBS	$12.00	$12.00
PUMP WATER*		5 AC. IN.		
CANAL WATER		15 AC. IN.		$0.00
SUBTOTAL			$118.20	$118.20

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		$1.45	$3.79	$1.15	$2.71	$9.10
PLOW	145 HP	0.67 HR		$5.73	$14.92	$5.44	$12.51	$38.61
DISC	145 HP	0.17 HR		$1.45	$3.79	$1.15	$2.71	$9.10
FLOAT	145 HP	0.24 HR		$2.05	$5.35	$0.96	$2.75	$11.11
FERTILIZE	65 HP	0.05 HR		$0.43	$0.58	$0.11	$1.49	$2.61
LISTER	65 HP	0.18 HR		$1.54	$2.10	$0.59	$1.52	$5.75
MULCHER	145 HP	0.15 HR		$1.28	$3.34	$1.29	$4.43	$10.35
SEEDER	65 HP	0.05 HR		$0.43	$0.58	$0.11	$1.49	$2.61
MULCHER	145 HP	0.15 HR		$1.28	$3.34	$1.29	$4.43	$10.35
LISTER	65 HP	0.18 HR		$1.54	$2.10	$0.59	$1.52	$5.75
IRRIGATE (4X)		2.00 HR		$15.00	$5.05	$0.00	$1.93	$21.98
SUBTOTAL		4.01 HR		$32.19	$44.94	$12.69	$37.50	$127.32
OVERHEAD EXPENSES								
DOWNTIME		0.50 HR		$4.30				$4.30
EMPLOYEE BENEFITS				$5.79				$5.79
INSURANCE			$0.64					$0.64
SUPERVISION AND MANAGEMENT				$19.90				$19.90
SUBTOTAL		0.50 HR	$0.64	$29.99				$30.63
TOTAL OPERATING EXPENSES		4.51 HR	$118.84	$62.18	$44.94	$12.69	$37.50	$276.15

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

TABLE 7. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 200 acre farm with above average management, Virden area, Hidalgo County, Projected 2018

Harvest dates: June 1 - October 10

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
ALFALFA HAY	$175.00	6.00	TONS (IN FIELD)	$1,050.00
GRAZING	$15.00	1.00	ACRE	$15.00
TOTAL				$1,065.00

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
WIRE	1.32	51	LBS	$67.87		$67.87
ESTABLISHMENT: Principal		3	YEARS		$92.05	$92.05
: Interest					$8.91	$8.91
CANAL WATER		36	AC. IN.		$45.00	$45.00
PUMP WATER*		18	AC. IN.			
SUBTOTAL				$67.87	$145.96	$213.83

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (9X)		4.50	HR		$33.75	$18.18	$0.00	$6.96	$58.89
SUBTOTAL		4.50	HR		$33.75	$18.18	$0.00	$6.96	$58.89
HARVEST OPERATIONS									
SWATHER (5X)	14 FT	0.80	HR		$6.84	$8.09	$0.46	$34.60	$49.99
BALER, PTO (5X)	145 HP	1.05	HR		$8.98	$23.39	$4.33	$19.90	$56.59
SUBTOTAL		1.85	HR		$15.82	$31.47	$4.80	$54.50	$106.58
OVERHEAD EXPENSES									
DOWNTIME		0.46	HR		$3.95				$3.95
EMPLOYEE BENEFITS					$8.92				$8.92
INSURANCE				$0.99					$0.99
LAND TAXES								$2.57	$2.57
SUPERVISION AND MANAGEMENT					$79.98				$79.98
OTHER EXPENSES				$138.85					$138.85
SUBTOTAL		0.46	HR	$139.84	$92.85			$2.57	$235.26
TOTAL OPERATING EXPENSES		6.81	HR	$207.71	$142.42	$49.66	$4.80	$209.99	$614.57
NET OPERATING PROFIT									$450.43
INTEREST ON OPERATING CAPITAL		($41.51	@	5.50%)					$2.28
INTEREST ON EQUIPMENT INVESTMENT									$19.71
RETURN TO LAND AND RISK									$428.44

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

BUDGET SUMMARY

GROSS RETURN		$1,065.00	
VARIABLE OPERATING EXPENSES	$262.16		
RETURN OVER VARIABLE EXPENSES		$802.84	(GROSS MARGIN)
FIXED EXPENSES	$209.99		
NET FARM INCOME		$592.85	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$142.42		
NET OPERATING PROFIT		$450.43	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$21.99		
RETURN TO LAND AND RISK		$428.44	

TABLE 8. Corn silage, flood-irrigated, budgeted per acre costs and returns for a 200 acre farm with above average management, Virden area, Hidalgo County, Projected 2018
Planting dates: April 15 - May 31
Harvest dates: August 15 - October 15

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
CORN SILAGE	$32.00	25.00	TONS (STANDING)	$800.00
TOTAL				$800.00

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$3.00	30	000	$90.00		$90.00
NITROGEN (N)	$0.31	32	LBS	$9.92		$9.92
PHOSPHATE (P205)	$0.24	40	LBS	$9.60		$9.60
CANAL WATER		36	AC. IN.		$45.00	$45.00
PUMP WATER*		14	AC. IN.			
SUBTOTAL				$109.52	$45.00	$154.52

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	65 HP	0.05	HR		$0.43	$0.58	$0.11	$1.49	$2.61
DISC	145 HP	0.17	HR		$1.45	$3.79	$1.15	$2.71	$9.10
CHISEL	145 HP	0.20	HR		$1.71	$4.45	$1.09	$3.56	$10.82
DISC	145 HP	0.17	HR		$1.45	$3.79	$1.15	$2.71	$9.10
FLOAT	65 HP	0.24	HR		$2.05	$2.80	$0.31	$1.06	$6.22
LISTER	65 HP	0.18	HR		$1.54	$2.10	$0.59	$1.52	$5.75
PRE-IRRIGATE		0.75	HR		$5.63	$1.77	$0.00	$0.68	$8.07
MULCHER	145 HP	0.15	HR		$1.28	$3.34	$1.29	$4.43	$10.35
PLANTER	145 HP	0.26	HR		$2.22	$5.79	$1.46	$7.56	$17.03
CULTIVATOR (2X)	65 HP	0.42	HR		$3.59	$4.90	$1.32	$2.24	$12.06
ROTOBUCK (3X)	145 HP	0.09	HR		$0.77	$2.00	$0.36	$1.80	$4.93
IRRIGATE (7X)		3.50	HR		$26.25	$12.37	$0.00	$4.74	$43.36
SUBTOTAL		6.18	HR		$48.38	$47.69	$8.84	$34.49	$139.40
OVERHEAD EXPENSES									
DOWNTIME		0.46	HR		$3.93				$3.93
EMPLOYEE BENEFITS					$8.71				$8.71
INSURANCE				$0.97					$0.97
LAND TAXES								$2.57	$2.57
SUPERVISION AND MANAGEMENT					$61.17				$61.17
OTHER EXPENSES				$138.85					$138.85
SUBTOTAL		0.46	HR	$139.81	$73.81			$2.57	$216.19
TOTAL OPERATING EXPENSES		6.64	HR	$249.33	$122.19	$47.69	$8.84	$82.06	$510.11
NET OPERATING PROFIT									$289.89
INTEREST ON OPERATING CAPITAL		($68.89	@	5.50%)					$3.79
INTEREST ON EQUIPMENT INVESTMENT									$18.27
RETURN TO LAND AND RISK									$267.83

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

BUDGET SUMMARY

GROSS RETURN		$800.00	
VARIABLE OPERATING EXPENSES	$305.86		
RETURN OVER VARIABLE EXPENSES		$494.14	(GROSS MARGIN)
FIXED EXPENSES	$82.06		
NET FARM INCOME		$412.07	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$122.19		
NET OPERATING PROFIT		$289.89	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$22.06		
RETURN TO LAND AND RISK		$267.83	

TABLE 9. Upland cotton (picker), flood-irrigated, budgeted per acre costs and returns for a 200 acre farm with average management, Virden area, Hidalgo County, Projected 2018
Planting dates: April 10 - April 30
Harvest dates: October 15 - December 15

ITEM	PRICE	YIELD		BASE	TOTAL
GROSS RETURNS					
LINT	$0.75	600.00	LBS		$450.00
SEED	$0.10	960.00	LBS		$93.60
DIRECT PAYMENT	$0.0000	600.00	LBS	0.85	$0.00
COUNTER CYCLICAL PAYMENT	$0.0000	1,060.00	LBS	0.85	$0.00
TOTAL					$543.60

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$7.55	17	LBS	$128.35		$128.35
NITROGEN (N)	$0.31	80	LBS	$24.80		$24.80
PHOSPHATE (P205)	$0.24	60	LBS	$14.40		$14.40
HERBICIDE	$14.08	1	ACRE	$14.08		$14.08
CANAL WATER		24	AC. IN.	$0.00	$45.00	$45.00
PUMP WATER*		12	AC. IN.			
CROP INSURANCE	$0.74			$0.74		$0.74
SUBTOTAL				$182.37	$45.00	$227.37

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZE	65 HP	0.05	HR		$0.43	$0.58	$0.11	$1.49	$2.61
DISC	145 HP	0.17	HR		$1.45	$3.79	$1.15	$2.71	$9.10
PLOW	145 HP	0.67	HR		$5.73	$14.92	$5.44	$12.51	$38.61
DISC & SPRAY	145 HP	0.15	HR		$1.28	$3.34	$1.11	$3.61	$9.35
FLOAT	65 HP	0.24	HR		$2.05	$2.80	$0.31	$1.06	$6.22
LISTER	145 HP	0.18	HR		$1.54	$4.01	$1.07	$2.79	$9.41
PRE-IRRIGATE		0.75	HR		$5.63	$1.35	$0.00	$0.52	$7.49
MULCHER	145 HP	0.14	HR		$1.20	$3.12	$1.21	$4.14	$9.66
PLANTER	145 HP	0.26	HR		$2.22	$5.79	$1.46	$7.56	$17.03
CULTIVATOR (4X)	65 HP	0.84	HR		$7.18	$9.80	$2.65	$4.48	$24.12
HOEING (CUSTOM)				$24.00					$24.00
ROTOBUCK (3X)	145 HP	0.03	HR		$0.26	$0.67	$0.12	$0.60	$1.64
IRRIGATE (8X)		4.00	HR		$30.00	$10.77	$0.00	$4.13	$44.90
SUBTOTAL		7.48	HR	$24.00	$58.97	$60.94	$14.64	$45.59	$204.14
HARVEST OPERATIONS									
COTTON PICKER (2X)	2 ROW	1.24	HR		$10.60	$20.25	$8.87	$92.50	$132.22
COTTON TRAILER (2X)	HALF TON	2.50	HR		$21.38	$37.80	$2.02	$20.39	$81.58
GIN COTTON (CUSTOM)				$68.52					$68.52
SUBTOTAL		3.74	HR	$68.52	$31.98	$58.05	$10.89	$112.89	$282.32
POSTHARVEST OPERATIONS									
SHREDDER	65 HP	0.29	HR		$2.48	$3.38	$0.43	$3.49	$9.79
SUBTOTAL		0.29	HR		$2.48	$3.38	$0.43	$3.49	$9.79
OVERHEAD EXPENSES									
DOWNTIME		1.56	HR		$13.32				$13.32
EMPLOYEE BENEFITS					$16.82				$16.82
INSURANCE				$1.87					$1.87
LAND TAXES								$2.57	$2.57
SUPERVISION AND MANAGEMENT					$45.17				$45.17
OTHER EXPENSES				$138.85					$138.85
SUBTOTAL		1.56	HR	$140.71	$75.30			$2.57	$218.58
TOTAL OPERATING EXPENSES		13.07	HR	$415.60	$168.72	$122.38	$25.96	$209.54	$942.20
NET OPERATING PROFIT									($398.60)
INTEREST ON OPERATING CAPITAL		($122.49	@	5.50%)					$6.74
INTEREST ON EQUIPMENT INVESTMENT									$78.58
RETURN TO LAND AND RISK									($483.92)

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

BUDGET SUMMARY

GROSS RETURN		$543.60	
VARIABLE OPERATING EXPENSES	$563.93		
RETURN OVER VARIABLE EXPENSES		($20.33)	(GROSS MARGIN)
FIXED EXPENSES	$209.54		
NET FARM INCOME		($229.88)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$168.72		
NET OPERATING PROFIT		($398.60)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$85.32		
RETURN TO LAND AND RISK		($483.92)	

TABLE 10. Grain sorghum, flood-irrigated, budgeted per acre costs and returns for a 200 acre farm with above average management, Virden area, Hidalgo County, Projected 2018
Planting dates: May 1 - June 15
Harvesting dates: October 15 - November 15

ITEM	PRICE	YIELD		BASE	TOTAL
GROSS RETURNS					
GRAIN SORGHUM	$6.08	60.00	CWT		$364.71
DIRECT PAYMENT	$0.00	60.00	CWT	0.85	$0.00
COUNTER CYCLICAL PAYMENT	$0.00	0.00	CWT		$0.00
GRAZING	$10.00	1.00	ACRE		$10.00
TOTAL					$374.71

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL
SEED	$1.32	8	LBS	$10.56		$10.56
NITROGEN (N)	$0.31	32	LBS	$9.92		$9.92
PHOSPHATE (P205)	$0.24	40	LBS	$9.60		$9.60
HERBICIDE	$14.08	1	ACRE	$14.08		$14.08
INSECTICIDE	$11.30	1	ACRE	$11.30		$11.30
CANAL WATER		28	AC. IN.		$45.00	$45.00
PUMP WATER*		12	AC. IN.			
CROP INSURANCE	$1.47			$1.47		$1.47
SUBTOTAL				$56.93	$45.00	$101.93

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
FERTILIZER	65 HP	0.15	HR		$1.28	$1.75	$0.33	$4.46	$7.83
DISC	145 HP	0.20	HR		$1.71	$4.45	$1.35	$3.19	$10.71
CHISEL	145 HP	0.40	HR		$3.42	$8.91	$2.18	$7.12	$21.63
DISC	145 HP	0.20	HR		$1.71	$4.45	$1.35	$3.19	$10.71
FLOAT	145 HP	0.25	HR		$2.14	$5.57	$1.00	$2.87	$11.57
SPRAYER	65 HP	0.20	HR		$1.71	$2.33	$0.39	$2.25	$6.69
LISTER	65 HP	0.50	HR		$4.28	$5.83	$1.64	$4.22	$15.97
PRE-IRRIGATE		0.75	HR		$5.63	$2.02	$0.00	$0.77	$8.42
MULCHER	145 HP	0.20	HR		$1.71	$4.45	$1.72	$5.91	$13.80
PLANTER	145 HP	0.25	HR		$2.14	$5.57	$1.40	$7.27	$16.37
SPRAYER	65 HP	0.20	HR		$1.71	$2.33	$0.39	$2.25	$6.69
CULTIVATOR (2X)	65 HP	0.60	HR		$5.13	$7.00	$1.89	$3.20	$17.23
ROTOBUCK (3X)	145 HP	0.25	HR		$2.14	$5.57	$1.00	$4.99	$13.70
IRRIGATE (5X)		2.50	HR		$18.75	$10.10	$0.00	$3.87	$32.72
SUBTOTAL		6.65	HR		$53.45	$70.35	$14.66	$55.57	$194.02
HARVEST OPERATIONS									
COMBINE (CUSTOM)				$25.20					$25.20
HAUL (CUSTOM)				$11.40					$11.40
SUBTOTAL		0.00	HR	$36.60					$36.60
OVERHEAD EXPENSES									
DOWNTIME		0.61	HR		$5.24				$5.24
EMPLOYEE BENEFITS					$9.62				$9.62
INSURANCE				$1.07					$1.07
LAND TAXES								$2.57	$2.57
SUPERVISION AND MANAGEMENT					$28.26				$28.26
OTHER EXPENSES				$138.85					$138.85
SUBTOTAL		0.61	HR	$139.92	$43.11			$2.57	$185.60
TOTAL OPERATING EXPENSES		7.26	HR	$233.45	$96.56	$70.35	$14.66	$103.14	$518.15
NET OPERATING PROFIT									($143.44)
INTEREST ON OPERATING CAPITAL	(	$52.77	@	5.50%	)				$2.90
INTEREST ON EQUIPMENT INVESTMENT									$29.42
RETURN TO LAND AND RISK									($175.76)

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

BUDGET SUMMARY

GROSS RETURN		$374.71	
VARIABLE OPERATING EXPENSES	$318.46		
RETURN OVER VARIABLE EXPENSES		$56.26	(GROSS MARGIN)
FIXED EXPENSES	$103.14		
NET FARM INCOME		($46.88)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$96.56		
NET OPERATING PROFIT		($143.44)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$32.32		
RETURN TO LAND AND RISK		($175.76)	

TABLE 11. Summary of per acre costs and returns for a 200 acre farm with above average management, Virden area, Hidalgo County, Projected 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY	CORN SILAGE	PICKER COTTON	GRAIN SORGHUM
		TONS	TONS	LBS	CWT
PRIMARY YIELD		6.00	25.00	600.00	60.00
PRIMARY PRICE		$175.00	$32.00	$0.75	$6.08
GOVERNMENT PAYMENTS		$0.00	$0.00	$0.00	$0.00
SECOND INCOME		$15.00	$0.00	$93.60	$10.00
GROSS RETURN		$1,065.00	$800.00	$543.60	$374.71
CASH OPERATING EXPENSES					
SEED	$100.00		$90.00	$128.35	$10.56
FERTILIZER	$18.20		$19.52	$39.20	$19.52
CHEMICALS				$14.08	$25.38
CROP INSURANCE				$0.74	$1.47
OTHER PURCHASED INPUTS		$67.87			
CANAL WATER	$0.00	$0.00	$0.00	$0.00	$0.00
FUEL, OIL & LUBRICANTS-EQUIPMENT	$39.89	$31.47	$33.55	$110.25	$58.23
FUEL-IRRIGATION	$5.05	$18.18	$14.14	$12.12	$12.12
REPAIRS	$12.69	$4.80	$8.84	$25.96	$14.66
CUSTOM CHARGES				$92.52	$36.60
LAND TAXES		$2.57	$2.57	$2.57	$2.57
OTHER EXPENSES	$0.64	$139.84	$139.81	$140.71	$139.92
TOTAL CASH EXPENSES	$176.47	$264.73	$308.43	$566.50	$321.03
RETURN OVER CASH EXPENSES	($176.47)	$800.27	$491.57	($22.90)	$53.69
FIXED EXPENSES	$37.50	$207.42	$79.49	$206.97	$100.57
TOTAL EXPENSES	$213.97	$472.15	$387.93	$773.48	$421.60
NET FARM INCOME	($213.97)	$592.85	$412.07	($229.88)	($46.88)
LABOR AND MANAGEMENT COSTS	$62.18	$142.42	$122.19	$168.72	$96.56
NET OPERATING PROFIT	($276.15)	$450.43	$289.89	($398.60)	($143.44)
CAPITAL COSTS					
INTEREST ON OPERATING CAPITAL		$2.28	$3.79	$6.74	$2.90
INTEREST ON EQUIPMENT INVESTMENT		$19.71	$18.27	$78.58	$29.42
TOTAL CAPITAL COSTS	$0.00	$21.99	$22.06	$85.32	$32.32
RETURN TO LAND AND RISK	($276.15)	$428.44	$267.83	($483.92)	($175.76)

TABLE 12. Whole farm summary, Virden area, Hidalgo County, Projected 2018

GROSS RETURNS				
ALFALFA HAY	45.00	ACRES		
CROP			$47,250	
GRAZING			$675	
CORN SILAGE	43.00	ACRES		
CROP			$34,400	
UPLAND COTTON	68.00	ACRES		
LINT			$30,600	
SEED			$6,365	
DIRECT PAYMENT			$0	
COUNTER CYCLICAL PAYMENT			$0	
GRAIN SORGHUM	34.00	ACRES		
CROP			$12,400	
DIRECT PAYMENT			$0	
COUNTER CYCLICAL PAYMENT			$0	
GRAZING			$340	
GROSS RETURN				$131,690
CASH OPERATING EXPENSES				
SEED			$14,457	
FERTILIZER			$4,442	
CHEMICALS			$1,820	
CROP INSURANCE			$100	
OTHER PURCHASED INPUTS			$3,054	
CANAL WATER			$0	
FUEL, OIL & LUBRICANTS-EQUIPMENT			$12,934	
FUEL-IRRIGATION			$2,738	
REPAIRS			$3,050	
CUSTOM CHARGES			$7,536	
LAND TAXES			$488	
OTHER EXPENSES			$26,640	
TOTAL CASH EXPENSES			$77,260	
RETURN OVER CASH EXPENSES				$54,430
FIXED EXPENSES			$26,666	
TOTAL EXPENSES			$103,925	
NET FARM INCOME				$27,765
LABOR AND MANAGEMENT COSTS			$27,352	
NET OPERATING PROFIT				$413
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL			$822	
INTEREST ON EQUIPMENT INVESTMENT			$8,016	
TOTAL CAPITAL COSTS			$8,839	
RETURN TO LAND AND RISK				($8,426)

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
$700 /ACRE	($12,626)	0.16%
$900 /ACRE	($13,826)	0.14%
$1,100 /ACRE	($15,026)	0.12%
$1,300 /ACRE	($16,226)	0.11%
$1,500 /ACRE	($17,426)	0.10%
$1,700 /ACRE	($18,626)	0.09%
$1,900 /ACRE	($19,826)	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 LAND VALUE)