

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... CURRY COUNTY Projected 2006.
FARM SIZE..... 640.00 ACRES
IRRIGATION TYPE.....SPRINKLER
NUMBER OF CROPS..... 1

VERSION 1.0

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

BUDGET AREA.....	CURRY COUNTY		
FARM SIZE.....	640 ACRES		
IRRIGATION TYPE.....	SPRINKLER		
NUMBER OF CROPS.....	1		
	WATER USE		
ACREAGE SUMMARY:	LAND USE (ACRES)	AC. IN. PER ACRE	TOTAL AC. IN.
ALFALFA ESTABLISHMEN*	100	5	500
ALFALFA HAY	500	25	12,500
CORNERS, ROADS, HOMESTEAD	140		
TOTAL	640		13,000
ACRE FEET PER ACRE OF WATER RIGHTS			1.69

* DOUBLE-CROPPED

TABLE 2. Basic cost information for Curry County,
Projected 2006.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.45
General & Irrigators	\$/hour	\$6.65
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.52
Phosphate (P205)	\$/pound	\$0.40
Seed:		
Alfalfa	\$/pound	\$3.20
Diesel fuel	\$/gallon	\$2.10
Gasoline	\$/gallon	\$2.00
Electricity (SWPS)	cents/KwHr	6.53
LP Gas	\$/gallon	\$2.00
Natural Gas (Gas NM)	\$/MCF	\$3.27
Plastic Twine	\$/pound	\$0.21
Employee Liability Insurance	\$/ \$1,000 wages	\$20.00
Employee Benefits	percent/wages	18.00%
Labor Downtime	percent	25.00%
Financial Rates:		
Operating Capital Interest Rate	percent	8.00%
Land Interest Rate	percent	8.00%
Equipment Interest Rate	percent	8.00%
Real Interest Rate	percent	3.00%
Land Taxes	\$109.00 /acre (full value)	\$0.82
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value) \$22.57 \$22.57
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 Curry County,
Projected 2006.

Item		
Electricity (Domestic & Shop)	\$212.00 per month	\$2,544
Telephone	\$106.00 per month	\$1,272
Accounting & Legal		\$1,553
Misc. Supplies & Hand Tools		\$2,327
Pickup and Auto		
miles	21,200 @	\$0.415 per mile
Insurance		
- general liability (non-employee)		\$2,088
- fire/theft		\$1,675
Property Taxes		
- non-planted land		\$0
- other than land & machinery		\$0
Building repairs and maintenance		\$1,383
Dues, fees, publications		\$382
Farmstead Equipment		\$155
	Total	\$22,176
	Total Per Planted Acre	\$44.35

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2006.

Planting Dates: August 1 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL	
PURCHASED INPUTS										
SEED	\$3.20	30.00 LBS	\$96.00						\$96.00	
NITROGEN (N)	\$0.52	20.00 LBS	\$10.40						\$10.40	
PHOSPHATE (P2O5)	\$0.40	50.00 LBS	\$20.00						\$20.00	
PUMP WATER*		5.00 AC. IN.								
SUBTOTAL			\$126.40						\$126.40	
PREHARVEST OPERATIONS										
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL		
CHISEL	185 HP	0.20 HR		\$1.49	\$4.35	\$1.45	\$10.23	\$17.53		
DISC	185 HP	0.14 HR		\$1.04	\$3.05	\$1.33	\$10.20	\$15.62		
FLOAT (2X)	140 HP	0.32 HR		\$2.38	\$5.25	\$1.40	\$6.43	\$15.46		
PRE-IRRIGATE		0.10 HR		\$0.75	\$2.88	\$0.00	\$0.18	\$3.81		
SEED (CUSTOM)			\$9.00						\$9.00	
IRRIGATE (6X)		0.60 HR		\$3.99	\$17.31	\$0.00	\$1.07	\$22.37		
SUBTOTAL		1.36 HR	\$9.00	\$9.65	\$32.84	\$4.18	\$28.12	\$83.79		
OVERHEAD EXPENSES										
DOWNTIME		0.09 HR		\$0.63						\$0.63
EMPLOYEE BENEFITS				\$1.74						\$1.74
INSURANCE			\$0.03						\$0.03	
SUPERVISION AND MANAGEMENT				\$15.69						\$15.69
SUBTOTAL		0.09 HR	\$0.03	\$18.06						\$18.09
TOTAL OPERATING EXPENSES		1.45 HR	\$135.43	\$27.72	\$32.84	\$4.18	\$28.12	\$228.28		

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2006.
Harvesting Dates: May 15 - September 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALFA HAY	\$130.00	6.50 TONS (STACKED)	\$845.00
TOTAL			\$845.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
NITROGEN (N)	\$0.52	100 LBS	\$52.00		\$52.00
PHOSPHATE (P205)	\$0.40	200 LBS	\$80.00		\$80.00
TRACE ELEMENTS	\$14.25	1 ACRE	\$14.25		\$14.25
HERBICIDE (CUSTOM)	\$20.54	1 ACRE	\$20.54		\$20.54
INSECTICIDE (CUSTOM)	\$14.39	1 ACRE	\$14.39		\$14.39
PLASTIC TWINE	\$0.21	170 FT/TON	\$0.06		\$0.06
ESTABLISHMENT: Principal		6 YEARS		\$38.05	\$38.05
: Interest				\$9.94	\$9.94
PUMP WATER*		25 AC. IN.			
SUBTOTAL			\$181.24	\$47.98	\$229.22

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE		2.00 HR		\$13.30	\$100.95	\$0.00	\$6.25	\$120.50
SUBTOTAL		2.00 HR		\$13.30	\$100.95	\$0.00	\$6.25	\$120.50

HARVEST OPERATIONS

SWATHER (5X)	16 FT	0.55 HR		\$4.10	\$4.32	\$0.80	\$7.79	\$17.00
RAKE (5X)	96 HP	0.60 HR		\$4.47	\$7.67	\$1.50	\$2.90	\$16.54
BALER (5X)	185 HP	0.25 HR		\$1.86	\$5.44	\$1.88	\$22.96	\$32.14
FRONT END LOADER (5X)	140 HP	0.50 HR		\$3.73	\$8.21	\$3.76	\$9.60	\$25.29
SUBTOTAL		1.90 HR		\$14.16	\$25.64	\$7.94	\$43.24	\$90.98

OVERHEAD EXPENSES

DOWNTIME		0.48 HR		\$3.54				\$3.54
EMPLOYEE BENEFITS				\$4.94				\$4.94
INSURANCE			\$0.55					\$0.55
LAND TAXES							\$0.82	\$0.82
SUPERVISION AND MANAGEMENT*				\$62.10				\$62.10
OTHER EXPENSES			\$44.35					\$44.35
SUBTOTAL		0.48 HR	\$44.90	\$70.58			\$0.82	\$116.30

TOTAL OPERATING EXPENSES 4.38 HR \$226.14 \$98.04 \$126.59 \$7.94 \$98.30 \$557.00

NET OPERATING PROFIT \$288.00

INTEREST ON OPERATING CAPITAL (\$123.62 @ 8.00%) \$9.89
INTEREST ON EQUIPMENT INVESTMENT \$31.70

RETURN TO LAND AND RISK \$246.41

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

BUDGET SUMMARY

GROSS RETURN		\$845.00	
VARIABLE OPERATING EXPENSES	\$360.66		
RETURN OVER VARIABLE EXPENSES		\$484.34	(GROSS MARGIN)
FIXED EXPENSES	\$98.30		
NET FARM INCOME		\$386.04	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$98.04		
NET OPERATING PROFIT		\$288.00	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$41.59		
RETURN TO LAND AND RISK		\$246.41	

TABLE 8. Summary of per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2006.

	ALFALFA ESTABLISHMENT	ALFALFA HAY
		TONS
PRIMARY YIELD		6.50
PRIMARY PRICE		\$130.00
GOVERNMENT PAYMENTS		\$0.00
SECOND INCOME		\$0.00
GROSS RETURN		\$845.00
CASH OPERATING EXPENSES		
SEED	\$96.00	
FERTILIZER	\$30.40	\$146.25
CHEMICALS		\$34.93
CROP INSURANCE		
OTHER PURCHASED INPUTS		\$0.06
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$12.65	\$25.64
FUEL-IRRIGATION	\$20.19	\$100.95
REPAIRS	\$4.18	\$7.94
CUSTOM CHARGES	\$9.00	\$0.00
LAND TAXES		\$0.82
OTHER EXPENSES	\$0.03	\$44.90
TOTAL CASH EXPENSES	\$172.45	\$361.48
RETURN OVER CASH EXPENSES	(\$172.45)	\$483.52
FIXED EXPENSES	\$28.12	\$97.48
TOTAL EXPENSES	\$200.56	\$458.96
NET FARM INCOME	(\$200.56)	\$386.04
LABOR AND MANAGEMENT COSTS	\$27.72	\$98.04
NET OPERATING PROFIT	(\$228.28)	\$288.00
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$9.89
INTEREST ON EQUIPMENT INVESTMENT		\$31.70
TOTAL CAPITAL COSTS	\$0.00	\$41.59
RETURN TO LAND AND RISK	(\$228.28)	\$246.41

TABLE 9. Whole farm summary, Curry County,
Projected 2006.

GROSS RETURNS		
ALFALFA HAY	500 ACRES	
CROP		\$422,500
GROSS RETURN		<u>\$422,500</u>
CASH OPERATING EXPENSES		
		\$9,600
		\$76,163
CHEMICALS		\$17,466
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$29
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$14,085
FUEL-IRRIGATION		\$52,493
REPAIRS		\$4,388
CUSTOM CHARGES		\$900
LAND TAXES		\$410
OTHER EXPENSES		\$22,453
TOTAL CASH EXPENSES		<u>\$197,987</u>
RETURN OVER CASH EXPENSES		\$224,513
FIXED EXPENSES		\$32,528
TOTAL EXPENSES		\$230,515
NET FARM INCOME		\$191,985
LABOR AND MANAGEMENT COSTS		\$51,789
NET OPERATING PROFIT		\$140,196
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$4,945
INTEREST ON EQUIPMENT INVESTMENT		\$15,851
TOTAL CAPITAL COSTS		<u>\$20,796</u>
RETURN TO LAND AND RISK		<u>\$119,400</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$109,800	28.05%
\$1,000 /ACRE	\$100,200	17.10%
\$1,500 /ACRE	\$90,600	12.30%
\$2,000 /ACRE	\$81,000	9.60%
\$2,500 /ACRE	\$71,400	7.88%

* 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)