

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... CURRY COUNTY, Projected 2011.
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 2011.

BUDGET AREA.....	CURRY COUNTY		
FARM SIZE.....	640 ACRES		
IRRIGATION TYPE.....	SPRINKLER		
NUMBER OF CROPS..	1		

ACREAGE SUMMARY:	WATER USE		
	LAND USE (ACRES)	AC. IN. PER ACRE	TOTAL AC. IN.
ALFALFA ESTABLISHMENT	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 2011.

Item			
Labor Wage Rate:			
Equipment operators		\$/hour	\$7.45
General & Irrigators		\$/hour	\$7.25
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)		\$/pound	\$0.71
Phosphate (P205)		\$/pound	\$0.65
Seed:			
Alfalfa		\$/pound	\$3.30
Diesel fuel		\$/gallon	\$2.95
Gasoline		\$/gallon	\$3.05
Electricity (SWPS)		cents/KwHr	6.78
LP Gas		\$/gallon	\$2.45
Natural Gas (Gas NM)		\$/MCF	\$3.75
Plastic Twine		\$/pound	\$0.31
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	7.00%
Land Interest Rate		percent	6.00%
Equipment Interest Rate		percent	7.00%
Real Interest Rate		percent	3.00%
Land Taxes		\$109.00 /acre (full value)	\$0.79
Personal Property Tax Rate	- NR - R	\$/ \$1,000 (Assessed Value)	\$21.81 \$21.93
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 2011.

Item			
Electricity (Domestic & Shop)		\$242.00 per month	\$2,904
Telephone		\$121.00 per month	\$1,452
Accounting & Legal			\$1,773
Misc. Supplies & Hand Tools			\$2,656
Pickup and Auto			
miles	24,200	@ \$0.500 per mile	\$12,100
Insurance			
- general liability (non-employee)			\$2,384
- fire/theft			\$1,912
Property Taxes			
- non-planted land			\$0
- other than land & machinery			\$0
Building repairs and maintenance			\$1,579
Dues, fees, publications			\$436
Farmstead Equipment			\$159
		Total	\$27,354
		Total Per Planted Acre	\$54.71

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2011.
Planting Dates: August 1 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
PURCHASED INPUTS								
SEED	\$3.30	30.00 LBS	\$99.00					\$99.00
NITROGEN (N)	\$0.71	20.00 LBS	\$14.20					\$14.20
PHOSPHATE (P2O5)	\$0.65	50.00 LBS	\$32.50					\$32.50
PUMP WATER*		5.00 AC. IN.						
SUBTOTAL			\$145.70					\$145.70
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	185 HP	0.20 HR		\$1.49	\$6.11	\$1.45	\$10.21	\$19.27
DISC	185 HP	0.14 HR		\$1.04	\$4.28	\$1.33	\$10.19	\$16.84
FLOAT (2X)	140 HP	0.32 HR		\$2.38	\$7.38	\$1.40	\$6.42	\$17.58
PRE-IRRIGATE		0.10 HR		\$0.75	\$2.99	\$0.00	\$0.18	\$3.92
SEED (CUSTOM)			\$9.00					\$9.00
IRRIGATE (6X)		0.60 HR		\$4.35	\$17.97	\$0.00	\$1.07	\$23.39
SUBTOTAL		1.36 HR	\$9.00	\$10.01	\$38.73	\$4.18	\$28.07	\$89.99
OVERHEAD EXPENSES								
DOWNTIME		0.09 HR		\$0.63				\$0.63
EMPLOYEE BENEFITS				\$1.80				\$1.80
INSURANCE			\$0.03					\$0.03
SUPERVISION AND MANAGEMENT				\$17.48				\$17.48
SUBTOTAL		0.09 HR	\$0.03	\$19.91				\$19.94
TOTAL OPERATING EXPENSES		1.45 HR	\$154.73	\$29.93	\$38.73	\$4.18	\$28.07	\$255.63

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2011.
Harvesting Dates: May 15 - September 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
ALFALFA HAY	\$165.00	6.50 TONS (STACKED)	\$1,072.50
TOTAL			\$1,072.50

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
NITROGEN (N)	\$0.71	100 LBS	\$71.00		\$71.00
PHOSPHATE (P205)	\$0.65	200 LBS	\$130.00		\$130.00
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	\$0.31	170 FT/TON	\$0.09		\$0.09
ESTABLISHMENT: Principal		6 YEARS		\$42.61	\$42.61
: Interest				\$9.81	\$9.81
PUMP WATER*		25 AC. IN.			
SUBTOTAL			\$250.26	\$52.42	\$302.68

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE		2.00 HR		\$14.50	\$104.81	\$0.00	\$6.24	\$125.55
SUBTOTAL		2.00 HR		\$14.50	\$104.81	\$0.00	\$6.24	\$125.55

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATH ER (5X)	16 FT	0.55 HR		\$4.10	\$6.07	\$0.80	\$7.77	\$18.74
RAKE (5X)	96 HP	0.60 HR		\$4.47	\$10.78	\$1.50	\$2.89	\$19.64
BALER (5X)	185 HP	0.25 HR		\$1.86	\$7.64	\$1.88	\$22.92	\$34.30
FRONT END LOADER (5X)	140 HP	0.50 HR		\$3.73	\$11.53	\$3.76	\$9.59	\$28.59
SUBTOTAL		1.90 HR		\$14.16	\$36.02	\$7.94	\$43.16	\$101.27

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.48 HR		\$3.54				\$3.54
EMPLOYEE BENEFITS			\$5.16				\$5.16
INSURANCE		\$0.57					\$0.57
LAND TAXES					\$0.79		\$0.79
SUPERVISION AND MANAGEMENT*			\$78.03				\$78.03
OTHER EXPENSES		\$54.71					\$54.71
SUBTOTAL	0.48 HR	\$55.28	\$86.72		\$0.79		\$142.79

TOTAL OPERATING EXPENSES	4.38 HR	\$305.54	\$115.38	\$140.83	\$7.94	\$102.61	\$672.29
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NET OPERATING PROFIT							\$400.21
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INTEREST ON OPERATING CAPITAL	(\$159.90	@	7.00%)		\$11.19
INTEREST ON EQUIPMENT INVESTMENT							\$27.74

RETURN TO LAND AND RISK							\$361.27
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* Pump water costs are shown under irrigation in the preharvest operations section.

BUDGET SUMMARY

GROSS RETURN		\$1,072.50	
VARIABLE OPERATING EXPENSES	\$454.31		
RETURN OVER VARIABLE EXPENSES		\$618.19	(GROSS MARGIN)
FIXED EXPENSES	\$102.61		
NET FARM INCOME		\$515.58	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$115.38		
NET OPERATING PROFIT		\$400.21	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$38.93		
RETURN TO LAND AND RISK		\$361.27	

TABLE 8. Summary of per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2011.

	ALFALFA ESTABLISHMENT	ALFALFA HAY
		TONS
PRIMARY YIELD		6.50
PRIMARY PRICE		\$165.00
GOVERNMENT PAYMENTS		\$0.00
SECOND INCOME		\$0.00
GROSS RETURN		\$1,072.50
CASH OPERATING EXPENSES		
SEED	\$99.00	
FERTILIZER	\$46.70	\$215.25
CHEMICALS		\$34.93
CROP INSURANCE		
OTHER PURCHASED INPUTS		\$0.09
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$17.77	\$36.02
FUEL-IRRIGATION	\$20.96	\$104.81
REPAIRS	\$4.18	\$7.94
CUSTOM CHARGES	\$9.00	\$0.00
LAND TAXES		\$0.79
OTHER EXPENSES	\$0.03	\$55.28
TOTAL CASH EXPENSES	\$197.64	\$455.10
RETURN OVER CASH EXPENSES	(\$197.64)	\$617.40
FIXED EXPENSES	\$28.07	\$101.81
TOTAL EXPENSES	\$225.70	\$556.92
NET FARM INCOME	(\$225.70)	\$515.58
LABOR AND MANAGEMENT COSTS	\$29.93	\$115.38
NET OPERATING PROFIT	(\$255.63)	\$400.21
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$11.19
INTEREST ON EQUIPMENT INVESTMENT		\$27.74
TOTAL CAPITAL COSTS	\$0.00	\$38.93
RETURN TO LAND AND RISK	(\$255.63)	\$361.27

TABLE 9. Whole farm summary, Curry County,
Projected 2011.

GROSS RETURNS		
ALFALFA HAY	500 ACRES	
CROP		\$536,250
GROSS RETURN		<u>\$536,250</u>
CASH OPERATING EXPENSES		
		\$9,900
		\$112,293
CHEMICALS		\$17,466
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$43
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$19,786
FUEL-IRRIGATION		\$54,501
REPAIRS		\$4,388
CUSTOM CHARGES		\$900
LAND TAXES		\$396
OTHER EXPENSES		\$27,643
TOTAL CASH EXPENSES		<u>\$247,316</u>
RETURN OVER CASH EXPENSES		\$288,934
FIXED EXPENSES		\$32,410
TOTAL EXPENSES		\$279,726
NET FARM INCOME		\$256,524
LABOR AND MANAGEMENT COSTS		\$60,681
NET OPERATING PROFIT		\$195,843
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$5,597
INTEREST ON EQUIPMENT INVESTMENT		\$13,869
TOTAL CAPITAL COSTS		<u>\$19,466</u>
RETURN TO LAND AND RISK		<u>\$176,377</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$166,777	37.61%
\$1,000 /ACRE	\$157,177	23.30%
\$1,500 /ACRE	\$147,577	16.87%
\$2,000 /ACRE	\$137,977	13.23%
\$2,500 /ACRE	\$128,377	10.88%

* 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)