

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... CURRY COUNTY, Projected 2018
FARM SIZE..... 640.00 ACRES
IRRIGATION TYPE..... SPRINKLER
NUMBER OF CROPS..... 2

VERSION 1.0

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TABLE 1. Acreage Summary, Curry County,
Projected 2018

BUDGET AREA.....	CURRY COUNTY
FARM SIZE.....	640 ACRES
IRRIGATION TYPE.....	SPRINKLER
NUMBER OF CROPS.....	2

ACREAGE SUMMARY:	WATER USE	
	AC. IN. PER ACRE	TOTAL AC. IN.
WHEAT	255	10
ARP	0	
FLEX IN WHEAT	45	10
GRAIN SORGHUM	170	16
ARP	0	
FLEX IN WHEAT CORNERS, ROADS, HOMESTEAD	30	10
	140	
TOTAL	640	6,020
ACRE FEET PER ACRE OF WATER RIGHTS		0.78

TABLE 2. Basic cost information for Curry County,
Projected 2018

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.75
General Irrigators	\$/hour	\$7.50
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.31
Phosphate (P205)	\$/pound	\$0.24
Seed:		
Grain Sorghum	\$/pound	\$1.32
Wheat	\$/pound	\$0.44
Diesel fuel	\$/gallon	\$2.70
Gasoline	\$/gallon	\$2.40
Electricity (SWPS)	cents/KwH	7.74
LP gas	\$/gallon	\$2.90
Natural gas (Gas NM)	\$/MCF	\$4.00
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	\$109.00 /acre (full value)	\$109.00
Personal Property Tax Rate	- NR \$/\$1,000 (Assessed Value)	\$21.60
	- R	\$20.65
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 2018

Item		
Electricity (Domestic & Shop)		\$254.00 per month \$3,048
Telephone		\$127.00 per month \$1,524
Accounting & Legal		\$1,861
Misc. Supplies & Hand Tools		\$2,788
Pickup and Auto		
miles	25,400 @ \$0.500 per mile	\$12,700
Insurance		
- general liability (non-employee)		\$2,502
- fire/theft		\$2,007
Property Taxes		
- non-planted land		\$0
- other than land & machinery		\$0
Building repairs and maintenance		\$1,657
Dues, fees, publications		\$445
Farmstead Equipment		\$191
Total		\$28,721
Total Per Planted Acre		\$57.44

TABLE 6. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County,
 Projected 2018
 Planting Dates: August 15 - September 15
 Harvesting Dates: June 15 - July 15

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
WHEAT	\$4.40	75.00 BUSHELS		\$330.00
DIRECT PAYMENT	\$0.00	75.00 BUSHELS	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00			\$0.00
GRAZING	\$40.00	1.00 ACRE		\$40.00
TOTAL				\$370.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$0.44	80 LBS	\$35.20		\$35.20
LIQUID FERT (28-0-0)	\$0.09	460 LBS	\$41.40		\$41.40
NITROGEN (N)	\$0.31	18 LBS	\$5.58		\$5.58
PHOSPHATE (P205)	\$0.24	46 LBS	\$11.04		\$11.04
INSECTICIDE (CUSTOM)	\$10.00	1 ACRE	\$10.00		\$10.00
HERBICIDE (CUSTOM)	\$11.17	1 ACRE	\$11.17		\$11.17
PUMP WATER*		10 AC. IN.			
CROP INSURANCE	\$0.15		\$0.15		\$0.15
SUBTOTAL			\$114.54		\$114.54

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	185 HP	0.15 HR		\$1.16	\$4.20	\$1.16	\$4.38	\$10.89
DISC (3X)	185 HP	0.33 HR		\$2.56	\$9.23	\$4.94	\$10.73	\$27.45
FERT S SPREADER	140 HP	0.05 HR		\$0.39	\$1.05	\$0.22	\$2.14	\$3.80
DRILL	140 HP	0.13 HR		\$1.01	\$2.74	\$0.79	\$7.83	\$12.37
IRRIGATE (7X)		0.70 HR		\$5.25	\$47.91	\$0.00	\$5.59	\$58.75
SUBTOTAL		1.36 HR		\$10.37	\$65.13	\$7.10	\$30.67	\$113.26

HARVEST OPERATIONS								
COMBINE (CUSTOM)			\$24.55					\$24.55
HAUL (C (CUSTOM)			\$12.00					\$12.00
SUBTOTAL			\$36.55					\$36.55

OVERHEAD EXPENSES								
DOWNTIME		0.17 HR		\$1.28				\$1.28
EMPLOYEE BENEFITS				\$1.87				\$1.87
INSURANCE			\$0.21				\$0.21	\$0.21
LAND TAXES							\$109.00	\$109.00
SUPERVISION AND MANAGEMENT				\$26.86				\$26.86
OTHER EXPENSES			\$57.44					\$57.44
SUBTOTAL		0.17 HR	\$57.65	\$30.00			\$109.00	\$196.65

TOTAL OPERATING EXPENSES		1.53 HR	\$208.74	\$40.36	\$65.13	\$7.10	\$139.67	\$461.01
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NET OPERATING PROFIT (\$91.01)

INTEREST ON OPERATING CAPITAL	(\$78.37	@	5.50%)			\$4.31
INTEREST ON EQUIPMENT INVESTMENT								\$12.12

RETURN TO LAND AND RISK (\$107.43)

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

BUDGET SUMMARY

GROSS RETURN		\$370.00	
VARIABLE OPERATING EXPENSES	\$280.97		
RETURN OVER VARIABLE EXPENSES	\$89.03	(GROSS MARGIN)	
FIXED EXPENSES	\$139.67		
NET FARM INCOME	(\$50.64)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$40.36		
NET OPERATING PROFIT	(\$91.01)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$16.43		
RETURN TO LAND AND RISK	(\$107.43)		

TABLE 7. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2018
 Planting Dates: May 15 - June 15
 Harvesting Dates: October 15 - November 15

ITEM	PRICE	YIELD	BASE	TOTAL
GROSS RETURNS				
GRAIN SORGHUM	\$6.08	65.00 CWT		\$395.11
DIRECT PAYMENT	\$0.00	65.00 CWT	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00	0.00 CWT		\$0.00
GRAZING	\$9.00	1.00 ACRE		\$9.00
TOTAL				\$404.11

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$1.32	5 LBS	\$6.60		\$6.60
LIQUID FERT (28-0-0)	\$0.09	500 LBS	\$45.00		\$45.00
NITROGEN (N)	\$0.31	25 LBS	\$7.75		\$7.75
PHOSPHATE (P205)	\$0.24	50 LBS	\$12.00		\$12.00
HERBICIDE (CUSTOM)	\$11.57	1 X/ACRE	\$11.57		\$11.57
INSECTICIDE (CUSTOM)	\$5.68	1 X/ACRE	\$5.68		\$5.68
TRACE ELEMENTS	\$16.00	1 ACRE	\$16.00		\$16.00
PUMP WATER*		16 AC. IN.			
CROP INSURANCE	\$0.29		\$0.29		\$0.29
SUBTOTAL			\$104.90		\$104.90

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.11 HR		\$0.85	\$3.08	\$1.65	\$3.58	\$9.15
CHISEL	185 HP	0.15 HR		\$1.16	\$4.20	\$1.16	\$4.38	\$10.89
DISC (2X)	185 HP	0.22 HR		\$1.71	\$6.15	\$3.29	\$7.15	\$18.30
FERT SPREADER	140 HP	0.05 HR		\$0.39	\$1.05	\$0.22	\$2.14	\$3.80
ROD WEEDER	185 HP	0.08 HR		\$0.62	\$2.24	\$0.51	\$2.61	\$5.98
PLANT ER	140 HP	0.17 HR		\$1.32	\$3.59	\$1.09	\$12.47	\$18.46
CULTIVATOR	140 HP	0.13 HR		\$1.01	\$2.74	\$1.05	\$8.05	\$12.85
IRRIGATE (10X)		1.00 HR		\$7.50	\$76.65	\$0.00	\$8.94	\$93.09
SUBTOTAL		1.91 HR		\$14.55	\$99.70	\$8.96	\$49.31	\$172.53

HARVEST OPERATIONS								
COMBINE (CUSTOM)				\$28.43				\$28.43
HAUL (CUSTOM)				\$12.35				\$12.35
SUBTOTAL				\$40.78				\$40.78

OVERHEAD EXPENSES								
DOWNTIME		0.22 HR		\$1.67				\$1.67
EMPLOYEE BENEFITS				\$2.62				\$2.62
INSURANCE			\$0.29					\$0.29
LAND TAXES						\$109.00		\$109.00
SUPERVISION AND MANAGEMENT				\$29.74				\$29.74
OTHER EXPENSES			\$57.44					\$57.44
SUBTOTAL		0.22 HR		\$57.73	\$34.03		\$109.00	\$200.76

TOTAL OPERATING EXPENSES		2.13 HR		\$203.41	\$48.58	\$99.70	\$8.96	\$158.31	\$518.97
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NET OPERATING PROFIT									(\$114.86)
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INTEREST ON OPERATING CAPITAL	(\$83.01	@	5.50%)				\$4.57
INTEREST ON EQUIPMENT INVESTMENT									\$19.29

RETURN TO LAND AND RISK									(\$138.71)
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* Pump water costs are shown under irrigation in the preharvest operations section.
 BUDGET SUMMARY

GROSS RETURN		\$404.11			
VARIABLE OPERATING EXPENSES	\$312.07				
RETURN OVER VARIABLE EXPENSES		\$92.03	(GROSS MARGIN)		
FIXED EXPENSES	\$158.31				
NET FARM INCOME		(\$66.28)	(RETURN TO CAPITAL, LABOR, LAND & RISK)		
LABOR AND MANAGEMENT COST	\$48.58				
NET OPERATING PROFIT		(\$114.86)	(RETURN TO CAPITAL, LAND & RISK)		
CAPITAL COSTS	\$23.85				
RETURN TO LAND AND RISK		(\$138.71)			

TABLE 8. Summary of per acre costs and returns for a 640 acre farm with above average management, Curry County, Projected 2018

	WHEAT	GRAIN SORGHUM
	BUSHEL	CWT
PRIMARY YIELD	75.00	65.00
PRIMARY PRICE	\$4.40	\$6.08
GOVERNMENT PAYMENTS	\$0.00	\$0.00
SECOND INCOME	\$40.00 ACRE	\$9.00 ACRE
GROSS RETURN	\$370.00	\$404.11
CASH OPERATING EXPENSES		
SEED	\$35.20	\$6.60
FERTILIZER	\$58.02	\$80.75
CHEMICALS	\$21.17	\$17.25
CROP INSURANCE	\$0.15	\$0.29
OTHER PURCHASED INPUTS		
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$17.22	\$23.05
FUEL-IRRIGATION	\$47.91	\$76.65
REPAIRS	\$7.10	\$8.96
CUSTOM CHARGES	\$36.55	\$40.78
LAND TAXES	\$109.00	\$109.00
OTHER EXPENSES	\$57.65	\$57.73
TOTAL CASH EXPENSES	\$389.97	\$421.07
RETURN OVER CASH EXPENSES	(\$19.97)	(\$16.97)
FIXED EXPENSES	\$30.67	\$49.31
TOTAL EXPENSES	\$420.64	\$470.39
NET FARM INCOME	(\$50.64)	(\$66.28)
LABOR AND MANAGEMENT COSTS	\$40.36	\$48.58
NET OPERATING PROFIT	(\$91.01)	(\$114.86)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL	\$4.31	\$4.57
INTEREST ON EQUIPMENT INVESTMENT	\$12.12	\$19.29
TOTAL CAPITAL COSTS	\$16.43	\$23.85
RETURN TO LAND AND RISK	(\$107.43)	(\$138.71)
Flex Computation	-64.65	-70.11

TABLE 9. Whole farm summary, Curry County,
Projected 2018

GROSS RETURNS		
WHEAT	255 ACRES	
CROP		\$84,150
GRAZING		\$10,200
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
GRAIN SORGHUM	170 ACRES	
CROP		\$67,168
GRAZING		\$1,530
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
GROSS RETURN		<u>\$163,048</u>
CASH OPERATING EXPENSES		
SEED		\$12,738
FERTILIZER		\$32,874
CHEMICALS		\$9,920
CROP INSURANCE		\$100
OTHER PURCHASED INPUTS		\$0
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$9,602
FUEL-IRRIGATION		\$28,841
REPAIRS		\$3,865
CUSTOM CHARGES		\$18,995
LAND TAXES		\$54,500
OTHER EXPENSES		\$28,839
TOTAL CASH EXPENSES		<u>\$200,273</u>
RETURN OVER CASH EXPENSES		(\$37,225)
FIXED EXPENSES		\$18,505
TOTAL EXPENSES		\$218,778
NET FARM INCOME		(\$55,729)
LABOR AND MANAGEMENT COSTS		\$21,579
NET OPERATING PROFIT		(\$77,308)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$2,199
INTEREST ON EQUIPMENT INVESTMENT		\$7,277
TOTAL CAPITAL COSTS		<u>\$9,476</u>
RETURN TO LAND AND RISK		<u>(\$86,784)</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	(\$96,384)	-17.16%
\$1,000 /ACRE	(\$105,984)	-10.03%
\$1,500 /ACRE	(\$115,584)	-7.09%
\$2,000 /ACRE	(\$125,184)	-5.48%
\$2,500 /ACRE	(\$134,784)	-4.47%

* 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)