

MICROCOMPUTER CROP COST AND RETURN GENERATOR

BUDGET AREA..... UNION COUNTY\ Projected 2018  
FARM SIZE..... 1,280.00 ACRES  
IRRIGATION TYPE..... SPRINKLER  
NUMBER OF CROPS..... 4

VERSION 1.0

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TABLE 1. Acreage Summary, Union County,  
Projected 2018

BUDGET AREA..... UNION COUNTY			
FARM SIZE..... 1,280 ACRES			
IRRIGATION TYPE..... SPRINKLER			
NUMBER OF CROPS... 5			
		WATER USE	
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	55.00 *	3	165
ALFALFA	375.00	40	15,000
WHEAT	318.75	11	3,506
ARP	0.00		
FLEX IN WHEAT	56.25	11	619
CORN	127.50	34	4,335
ARP	0.00		
FLEX IN WHEAT	22.50	11	248
GRAIN SORGHUM	127.50	12	1,530
ARP	0.00		
FLEX IN WHEAT	22.50	11	248
HAYGRAZER	190.00		
ROADS, HOMESTEAD	40.00		
TOTAL	1,280.00		25,650
ACRE FEET PER ACRE OF WATER RIGHTS			1.67

\* DOUBLE-CROPPED

TABLE 2. Basic cost information for Union 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
Potash (K2O)	\$/pound	\$0.23
Seed:		
Alfalfa	\$/pound	\$4.00
Wheat	\$/pound	\$0.44
Corn for Grain	\$/bag	\$240.00
Grain Sorghum	\$/pound	\$1.32
Haygrazer/Millet	\$/pound	\$0.86
Oats	\$/pound	\$0.44
Natural gas	\$/MCF	\$4.00
(service charge)	\$/month	\$10.00
Diesel fuel	\$/gallon	\$2.70
Gasoline	\$/gallon	\$2.40
Electricity	cents/KwHr	7.94
LP Gas	\$/gallon	\$2.85
Baling Twine	\$/pound	\$0.72
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	\$27.00 /acre	\$0.20
Personal Property Tax Rate	- NR \$/ \$1,000 (Assessed Value) - R	\$22.35 \$19.20
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 Union County,  
Projected 2018

Item		
Electricity (Domestic & Shop)	\$508.00	per month \$6,096
Telephone	\$247.65	per month \$2,972
Accounting & Legal		\$4,616
Misc. Supplies & Hand Tools		\$4,686
Pickup and Auto		
miles 39,370 @ \$0.500 per mile		\$19,685
Insurance		
- general liability (non-employee)		\$2,985
- fire/theft		\$2,394
Property Taxes		
- non-planted land		\$0
- other than land & machinery		\$6,010
Building repairs and maintenance		\$1,924
Dues, fees, publications		\$445
Farmstead Equipment		\$368
Total		\$52,181
Total per planted acre		\$47.96
Total per dryland acre		\$9.59

TABLE 2 Pumping Costs and Sales for Irrigation with User County

Category	Rate	Unit
Electric Power	\$0.05	1000 GPH
Water	\$0.005	1000 GPH
Maintenance	\$0.005	1000 GPH
Depreciation	\$0.005	1000 GPH
Insurance	\$0.005	1000 GPH
Property Taxes	\$0.005	1000 GPH
Other	\$0.005	1000 GPH

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Item	Quantity	Unit Price	Total Cost
Electric Power	1000	\$0.05	\$50.00
Water	1000	\$0.005	\$5.00
Maintenance	1000	\$0.005	\$5.00
Depreciation	1000	\$0.005	\$5.00
Insurance	1000	\$0.005	\$5.00
Property Taxes	1000	\$0.005	\$5.00
Other	1000	\$0.005	\$5.00

Notes: 1. Based on a constant flow of 2.5 cfs. 2. Based on a constant flow of 2.5 cfs. 3. Based on a constant flow of 2.5 cfs. 4. Based on a constant flow of 2.5 cfs. 5. Based on a constant flow of 2.5 cfs. 6. Based on a constant flow of 2.5 cfs. 7. Based on a constant flow of 2.5 cfs. 8. Based on a constant flow of 2.5 cfs. 9. Based on a constant flow of 2.5 cfs. 10. Based on a constant flow of 2.5 cfs.

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, Projected 2018  
Planting dates: August 1 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$4.00	20 LBS		\$80.00				\$80.00
OAT SEED	\$0.44	30 LBS		\$13.20				\$13.20
PUMP WATER*		3 AC. IN.						
SUBTOTAL				\$93.20				\$93.20
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58
CULTI-PACKER	93 HP	0.17 HR		\$1.45	\$2.48	\$0.17	\$3.40	\$7.50
DRILL	93 HP	0.12 HR		\$1.03	\$1.75	\$0.32	\$1.72	\$4.82
IRRIGATE (4X)		0.40 HR		\$3.00	\$8.24	\$0.00	\$0.43	\$11.67
SUBTOTAL		0.76 HR		\$6.08	\$14.43	\$1.75	\$8.31	\$30.57
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.09 HR		\$0.77				\$0.77
EMPLOYEE BENEFITS				\$1.09				\$1.09
INSURANCE			\$0.12					\$0.12
SUPERVISION AND MANAGEMENT				\$9.24				\$9.24
SUBTOTAL		0.09	\$0.12	\$11.11				\$11.23
<u>TOTAL OPERATING EXPENSES</u>		0.85 HR	\$93.32	\$17.19	\$14.43	\$1.75	\$8.31	\$135.00

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, Projected 2018  
Harvesting dates: June 1 - October 10

ITEM	PRICE	YIELD						TOTAL	
<b>GROSS RETURNS</b>									
ALFALFA HAY	\$185.00	6.50 TONS (STACKED)						\$1,202.50	
<b>TOTAL</b>							<b>\$1,202.50</b>		
<b>PURCHASED INPUTS</b>		PRICE	QUANTITY	<b>PURCHASED INPUTS</b>		FIXED COST	TOTAL		
NITROGEN (N)	\$0.31		30 LBS	\$9.30			\$9.30		
PHOSPHATE (P2O5)	\$0.24		100 LBS	\$24.00			\$24.00		
POTASH (K2O)	\$0.23		50 LBS	\$11.50			\$11.50		
TRACE ELEMENTS	\$0.15		12 LBS	\$1.80			\$1.80		
ESTABLISHMENT:Principal			7 YEARS			\$19.29	\$19.29		
: Interest						\$4.19	\$4.19		
BALING TWINE	\$0.72		1 ROLL	\$0.41			\$0.41		
PUMP WATER*			40 AC. IN.						
<b>SUBTOTAL</b>				<b>\$47.01</b>		<b>\$23.48</b>	<b>\$70.49</b>		
<b>PREHARVEST OPERATIONS</b>		POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (11X)			1.10 HR		\$8.25	\$109.84	\$0.00	\$5.79	\$123.88
<b>SUBTOTAL</b>			<b>1.10 HR</b>		<b>\$8.25</b>	<b>\$109.84</b>	<b>\$0.00</b>	<b>\$5.79</b>	<b>\$123.88</b>
<b>HARVEST OPERATIONS</b>									
SWATHER (4X)		13 FT SP	0.64 HR		\$5.47	\$6.47	\$0.37	\$3.69	\$16.00
BALER (4X)		126 HP	0.68 HR		\$5.81	\$15.15	\$2.85	\$5.98	\$29.79
<b>SUBTOTAL</b>			<b>1.32 HR</b>		<b>\$11.29</b>	<b>\$21.62</b>	<b>\$3.22</b>	<b>\$9.67</b>	<b>\$45.79</b>
<b>OVERHEAD EXPENSES</b>									
DOWNTIME			0.33 HR		\$2.82				\$2.82
EMPLOYEE BENEFITS					\$3.52				\$3.52
INSURANCE				\$0.39					\$0.39
LAND TAXES							\$0.20		\$0.20
SUPERVISION AND MANAGEMENT					\$85.94				\$85.94
OTHER EXPENSES				\$47.96					\$47.96
<b>SUBTOTAL</b>			<b>0.33 HR</b>		<b>\$48.35</b>	<b>\$92.27</b>		<b>\$0.20</b>	<b>\$140.83</b>
<b>TOTAL OPERATING EXPENSES</b>			<b>2.75 HR</b>		<b>\$95.36</b>	<b>\$111.81</b>	<b>\$131.46</b>	<b>\$3.22</b>	<b>\$380.98</b>
<b>NET OPERATING PROFIT</b>									<b>\$821.52</b>
INTEREST ON OPERATING CAPITAL			\$53.03 @	5.50%	)				\$2.92
INTEREST ON EQUIPMENT INVESTMENT									\$8.22
<b>RETURN TO LAND AND RISK</b>									<b>\$810.38</b>

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

GROSS RETURN		\$1,202.50	
VARIABLE OPERATING EXPENSES	\$230.04		
RETURN OVER VARIABLE EXPENSES		\$972.46	(GROSS MARGIN)
FIXED EXPENSES	\$39.14		
NET FARM INCOME		\$933.33	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$111.81		
NET OPERATING PROFIT		\$821.52	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$11.14		
RETURN TO LAND AND RISK		\$810.38	

TABLE 8. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County,  
 Projected 2018  
 Planting dates: August 15 - November 15  
 Harvesting dates: July 1 - July 15

ITEM	PRICE	YIELD	BASE						TOTAL
<b>GROSS RETURNS</b>									
WHEAT	\$4.40	80.00	BUSHEL						\$352.00
DIRECT PAYMENT	\$0.00	80.00	BUSHEL	0.85					\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00								\$0.00
GRAZING	\$40.00	1.00	ACRE						\$40.00
<b>TOTAL</b>									<b>\$392.00</b>
<b>PURCHASED INPUTS</b>									
	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
SEED	\$0.44	100	LBS	\$44.00					\$44.00
MANURE	\$2.70	8	TON	\$21.60					\$21.60
LIVESTOCK FAC & EQUIP							\$5.00		\$5.00
PUMP WATER*		11	AC. IN.						\$0.00
CROP INSURANCE	\$0.12								\$0.12
<b>SUBTOTAL</b>				<b>\$65.60</b>			<b>\$5.00</b>		<b>\$70.72</b>
<b>PREHARVEST OPERATIONS</b>									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58	
CHISEL	185 HP	0.09 HR		\$0.77	\$2.52	\$0.69	\$2.75	\$6.73	
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58	
DRILL	126 HP	0.12 HR		\$1.03	\$2.67	\$0.68	\$1.93	\$6.31	
IRRIGATE (7X)		0.70 HR		\$5.25	\$30.21	\$0.00	\$2.00	\$37.46	
<b>SUBTOTAL</b>		<b>1.05 HR</b>		<b>\$8.24</b>	<b>\$39.31</b>	<b>\$3.90</b>	<b>\$12.20</b>	<b>\$63.66</b>	
<b>HARVEST OPERATIONS</b>									
COMBINE	GRAIN TABLE	0.14 HR		\$1.20	\$3.16	\$0.52	\$13.79	\$18.67	
GRAIN CART	93 HP	0.14 HR		\$1.20	\$2.05	\$0.44	\$1.89	\$5.57	
TRUCK	SEMI	0.14 HR		\$1.20	\$1.98	\$0.39	\$6.03	\$9.60	
<b>SUBTOTAL</b>		<b>0.42 HR</b>		<b>\$0.00</b>	<b>\$3.59</b>	<b>\$7.19</b>	<b>\$1.35</b>	<b>\$21.71</b>	
<b>OVERHEAD EXPENSES</b>									
DOWNTIME		0.19 HR		\$1.65				\$1.65	
EMPLOYEE BENEFITS				\$2.13				\$2.13	
INSURANCE				\$0.24				\$0.24	
LAND TAXES							\$0.20	\$0.20	
SUPERVISION AND MANAGEMENT				\$28.53				\$28.53	
OTHER EXPENSES				\$47.96				\$47.96	
<b>SUBTOTAL</b>		<b>0.19 HR</b>		<b>\$48.20</b>	<b>\$32.30</b>		<b>\$0.20</b>	<b>\$80.70</b>	
<b>TOTAL OPERATING EXPENSES</b>		<b>1.66 HR</b>		<b>\$113.80</b>	<b>\$44.13</b>	<b>\$46.50</b>	<b>\$5.26</b>	<b>\$39.11</b>	
<b>NET OPERATING PROFIT</b>									<b>\$143.08</b>
INTEREST ON OPERATING CAPITAL		( \$44.38 @	5.50%	)				\$2.44	
INTEREST ON EQUIPMENT INVESTMENT								\$12.68	
<b>RETURN TO LAND AND RISK</b>									<b>\$127.95</b>

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

**BUDGET SUMMARY**

GROSS RETURN		\$392.00	
VARIABLE OPERATING EXPENSES	\$165.55		
RETURN OVER VARIABLE EXPENSES	\$226.45		(GROSS MARGIN)
FIXED EXPENSES	\$39.11		
NET FARM INCOME	\$187.33		(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$44.13		
NET OPERATING PROFIT	\$143.20		(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$15.12		
RETURN TO LAND AND RISK	\$128.07		

TABLE 9. Corn for grain, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, Projected 2018  
 Planting dates: April 15 - May 15  
 Harvesting dates: October 1 - November 15

ITEM	PRICE	YIELD	BASE	TOTAL
<b>GROSS RETURNS</b>				
CORN FOR GRAIN	\$3.70	200.00 BUSHEL		\$740.00
DIRECT PAYMENT	\$0.00	200.00 BUSHEL	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00	0.00 BUSHEL		\$0.00
GRAZING	\$20.00	1.00 ACRE		\$20.00
<b>TOTAL</b>				<b>\$760.00</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$3.00	26.00 000	\$78.00		\$78.00
NITROGEN (N)	\$0.31	220.00 LBS	\$68.20		\$68.20
PHOSPHATE (P2O5)	\$0.24	70.00 LBS	\$16.80		\$16.80
POTASSIUM (K-MAG)	\$0.21	300.00 LBS	\$63.00		\$63.00
INSECTICIDE	\$15.07	3.00 ACRE	\$45.20		\$45.20
HERBICIDE	\$22.60	1.00 ACRE	\$22.60		\$22.60
LIVESTOCK FAC & EQUIP				\$5.00	\$5.00
PUMP WATER*		34.00 AC. IN.			\$0.00
CROP INSURANCE	\$0.39				\$0.39
<b>SUBTOTAL</b>			<b>\$293.80</b>	<b>\$5.00</b>	<b>\$299.19</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58
CHISEL	185 HP	0.09 HR		\$0.77	\$2.52	\$0.69	\$2.75	\$6.73
DISC & SPRAY	185 HP	0.10 HR		\$0.86	\$2.80	\$1.88	\$4.77	\$10.30
PLANTER	126 HP	0.12 HR		\$1.03	\$2.67	\$0.79	\$5.28	\$9.78
ROLLING CULT (2X)	126 HP	0.20 HR		\$1.71	\$4.45	\$1.79	\$4.29	\$12.24
SIDEDRESS	185 HP	0.17 HR		\$1.45	\$4.75	\$0.96	\$4.69	\$11.86
IRRIGATE (16X)		1.60 HR		\$12.00	\$93.37	\$0.00	\$6.20	\$111.56
<b>SUBTOTAL</b>		<b>2.35 HR</b>		<b>\$18.41</b>	<b>\$112.52</b>	<b>\$7.38</b>	<b>\$30.74</b>	<b>\$169.05</b>

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
COMBINE	CORN HEAD	0.20 HR		\$1.71	\$4.51	\$0.93	\$32.13	\$39.28
GRAIN CART	93 HP	0.20 HR		\$1.71	\$2.92	\$0.62	\$2.70	\$7.95
TRUCK	SEMI	0.20 HR		\$1.71	\$2.84	\$0.56	\$8.61	\$13.72
<b>SUBTOTAL</b>		<b>0.60 HR</b>	<b>\$0.00</b>	<b>\$5.13</b>	<b>\$10.27</b>	<b>\$2.11</b>	<b>\$43.44</b>	<b>\$60.95</b>

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.30 HR			\$2.52			\$2.52
EMPLOYEE BENEFITS				\$4.24			\$4.24
INSURANCE		\$0.47					\$0.47
LAND TAXES						\$0.20	\$0.20
SUPERVISION AND MANAGEMENT			\$56.44				\$56.44
OTHER EXPENSES		\$47.96					\$47.96
<b>SUBTOTAL</b>	<b>0.30 HR</b>	<b>\$48.43</b>	<b>\$63.20</b>			<b>\$0.20</b>	<b>\$111.83</b>

TOTAL OPERATING EXPENSES 3.25 HR \$342.23 \$86.74 \$122.79 \$9.49 \$79.38 \$641.02

NET OPERATING PROFIT \$118.98

INTEREST ON OPERATING CAPITAL ( \$178.10 @ 5.50% ) \$9.80  
 INTEREST ON EQUIPMENT INVESTMENT \$28.27

RETURN TO LAND AND RISK \$80.92

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

BUDGET SUMMARY

GROSS RETURN		\$760.00	
VARIABLE OPERATING EXPENSES	\$474.51		
RETURN OVER VARIABLE EXPENSES	\$285.49	(GROSS MARGIN)	
FIXED EXPENSES	\$79.38		
NET FARM INCOME	\$206.11	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$86.74		
NET OPERATING PROFIT	\$119.37	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$38.06		
RETURN TO LAND AND RISK	\$81.31		

TABLE 10. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, Projected 2018  
 Planting dates: May 15 - June 15  
 Harvesting dates: October 15 - November 15

ITEM	PRICE	YIELD	BASE	TOTAL
<b>GROSS RETURNS</b>				
GRAIN SORGHUM	\$6.08	45.00 CWT		\$273.54
DIRECT PAYMENT	\$0.00	45.00 CWT	0.85	\$0.00
COUNTER CYCLICAL PAYMENT	\$0.00	0.00 CWT		\$0.00
GRAZING	\$5.00	1.00 ACRE		\$5.00
<b>TOTAL</b>				<b>\$278.54</b>

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$1.32	5 LBS	\$6.60		\$6.60
NITROGEN (N)	\$0.31	150 LBS	\$46.50		\$46.50
PHOSPHATE (P205)	\$0.24	50 LBS	\$12.00		\$12.00
HERBICIDE	\$22.60	1 ACRE	\$22.60		\$22.60
LIVESTOCK FAC & EQUIP				\$5.00	\$5.00
PUMP WATER*		12 AC. IN.			
CROP INSURANCE	\$0.39				\$0.39
<b>SUBTOTAL</b>			<b>\$87.70</b>	<b>\$5.00</b>	<b>\$93.10</b>

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58
CHISEL	185 HP	0.09 HR		\$0.77	\$2.52	\$0.69	\$2.75	\$6.73
DISC & SPRAY	185 HP	0.10 HR		\$0.86	\$2.80	\$1.88	\$4.77	\$10.30
PLANTER	126 HP	0.12 HR		\$1.03	\$2.67	\$0.79	\$5.28	\$9.78
ROLLING CULT.	126 HP	0.10 HR		\$0.86	\$2.23	\$0.89	\$2.15	\$6.12
SIDEDRESS ANHYDROUS	185 HP	0.17 HR		\$1.45	\$4.75	\$0.96	\$4.69	\$11.86
IRRIGATE (6X)		0.60 HR		\$4.50	\$32.95	\$0.00	\$2.19	\$39.64
<b>SUBTOTAL</b>		<b>1.25 HR</b>		<b>\$10.06</b>	<b>\$49.88</b>	<b>\$6.48</b>	<b>\$24.58</b>	<b>\$91.00</b>

HARVEST OPERATIONS	GRAIN TABLE	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
COMBINE	93 HP	0.14 HR		\$1.20	\$3.16	\$0.52	\$13.79	\$18.67
GRAIN CART	2 T 18 FT	0.14 HR		\$1.20	\$2.05	\$0.44	\$1.89	\$5.57
TRUCK		0.14 HR		\$1.20	\$1.59	\$0.06	\$16.27	\$19.11
<b>SUBTOTAL</b>		<b>0.42 HR</b>	<b>\$0.00</b>	<b>\$3.59</b>	<b>\$6.79</b>	<b>\$1.02</b>	<b>\$31.95</b>	<b>\$43.35</b>

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.23 HR		\$1.92				\$1.92
EMPLOYEE BENEFITS			\$2.46				\$2.46
INSURANCE		\$0.27					\$0.27
LAND TAXES						\$0.20	\$0.20
SUPERVISION AND MANAGEMENT			\$20.76				\$20.76
OTHER EXPENSES		\$47.96					\$47.96
<b>SUBTOTAL</b>	<b>0.23 HR</b>	<b>\$48.23</b>	<b>\$25.14</b>			<b>\$0.20</b>	<b>\$73.57</b>

<b>TOTAL OPERATING EXPENSES</b>	<b>1.90 HR</b>	<b>\$135.94</b>	<b>\$38.79</b>	<b>\$56.67</b>	<b>\$7.50</b>	<b>\$61.74</b>	<b>\$301.02</b>
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<b>NET OPERATING PROFIT</b>							<b>(\$22.49)</b>
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INTEREST ON OPERATING CAPITAL	(	\$58.79	@	5.50%	)		\$3.23
INTEREST ON EQUIPMENT INVESTMENT							\$19.99

<b>RETURN TO LAND AND RISK</b>							<b>(\$45.71)</b>
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\* Pump water costs are shown under irrigation in the preharvest operations section

**BUDGET SUMMARY**

GROSS RETURN		\$278.54	
VARIABLE OPERATING EXPENSES	\$200.11		
RETURN OVER VARIABLE EXPENSES		\$78.43	(GROSS MARGIN)
FIXED EXPENSES	\$61.74		
NET FARM INCOME		\$16.69	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$38.79		
NET OPERATING PROFIT		(\$22.09)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$23.22		
RETURN TO LAND AND RISK		(\$45.32)	



TABLE 11. Haygrazer/millet, dryland, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County,  
 Projected 2018  
 Planting dates: June 1 - June 15  
 Harvesting dates: September 1 - September 15

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
HAY	\$170.00	1.50 TONS	\$255.00
TOTAL			\$255.00

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
SEED	\$0.86	6 LBS	\$5.16		\$5.16
HERBICIDE	\$13.70	1 ACRE	\$13.70		\$13.70
BALING TWINE	\$0.72	0 ROLL	\$0.10		\$0.10
SUBTOTAL			\$18.95		\$18.95

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
CHISEL	185 HP	0.09 HR		\$0.77	\$2.52	\$0.69	\$2.75	\$6.73
DISC	185 HP	0.07 HR		\$0.60	\$1.96	\$1.26	\$2.76	\$6.58
DRILL	126 HP	0.12 HR		\$1.03	\$2.67	\$0.68	\$1.93	\$6.31
SUBTOTAL		0.28 HR		\$2.39	\$7.15	\$2.64	\$7.44	\$19.62

HARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
SWATHER	14 FT SP	0.16 HR		\$1.37	\$1.62	\$0.09	\$0.92	\$4.00
BALER	126 HP	0.17 HR		\$1.45	\$3.79	\$0.71	\$1.50	\$7.45
SUBTOTAL		0.33 HR	\$0.00	\$2.82	\$5.40	\$0.81	\$2.42	\$11.45

OVERHEAD EXPENSES	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DOWNTIME	0.15 HR		\$1.30				\$1.30
EMPLOYEE BENEFITS			\$0.94				\$0.94
INSURANCE		\$0.10					\$0.10
LAND TAXES						\$0.20	\$0.20
SUPERVISION AND MANAGEMENT			\$18.16				\$18.16
OTHER EXPENSES		\$47.96					\$47.96
SUBTOTAL	0.15 HR	\$48.06	\$20.40			\$0.20	\$68.66

TOTAL OPERATING EXPENSES	0.43 HR	\$67.02	\$25.61	\$12.55	\$3.45	\$10.06	\$118.69
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NET OPERATING PROFIT							\$136.31
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INTEREST ON OPERATING CAPITAL	(	\$12.44	@	5.50%	)		\$0.68
INTEREST ON EQUIPMENT INVESTMENT							\$4.33

RETURN TO LAND AND RISK							\$131.30
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BUDGET SUMMARY

GROSS RETURN		\$255.00	
VARIABLE OPERATING EXPENSES	\$83.01		
RETURN OVER VARIABLE EXPENSES		\$171.99	(GROSS MARGIN)
FIXED EXPENSES	\$10.06		
NET FARM INCOME		\$161.93	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$25.61		
NET OPERATING PROFIT		\$136.31	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$5.01		
RETURN TO LAND AND RISK		\$131.30	

TABLE 12. Summary of per acre costs and returns for a 1,280 acre farm with above average management, Union County,  
Projected 2018

	ALFALFA ESTABLISHMENT	ALFALFA HAY	WHEAT	CORN FOR GRAIN	GRAIN SORGHUM	HAYGRAZER & MILLET
		TONS	BU	BU	CWT	TONS
PRIMARY YIELD		6.50	80.00	200.00	45.00	1.50
PRIMARY PRICE		\$185.00	\$4.40	\$3.70	\$6.08	\$170.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$40.00	\$20.00	\$5.00	\$0.00
GROSS RETURN		\$1,202.50	\$392.00	\$760.00	\$278.54	\$255.00
CASH OPERATING EXPENSES						
SEED	\$93.20		\$44.00	\$78.00	\$6.60	\$5.16
FERTILIZER		\$46.60	\$21.60	\$148.00	\$58.50	
CHEMICALS				\$67.80	\$22.60	\$13.70
CROP INSURANCE			\$0.12	\$0.39	\$0.39	
OTHER PURCHASED INPUTS		\$0.41				\$0.10
CANAL WATER						
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$6.20	\$21.62	\$16.29	\$29.42	\$23.72	\$12.55
FUEL-IRRIGATION	\$8.24	\$109.84	\$30.21	\$93.37	\$32.95	
REPAIRS	\$1.75	\$3.22	\$5.26	\$9.49	\$7.50	\$3.45
CUSTOM CHARGES						\$0.00
LAND TAXES		\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
OTHER EXPENSES	\$0.12	\$48.35	\$48.20	\$48.43	\$48.23	\$48.06
TOTAL CASH EXPENSES	\$109.51	\$230.24	\$165.87	\$475.10	\$200.70	\$83.22
RETURN OVER CASH EXPENSES	(\$109.51)	\$972.26	\$226.13	\$284.90	\$77.83	\$171.78
FIXED EXPENSES	\$8.31	\$38.94	\$38.91	\$79.17	\$61.53	\$9.86
TOTAL EXPENSES	\$117.81	\$269.17	\$204.79	\$554.28	\$262.24	\$93.07
NET FARM INCOME	(\$117.81)	\$933.33	\$187.21	\$205.72	\$16.30	\$161.93
LABOR AND MANAGEMENT COSTS	\$17.19	\$111.81	\$44.13	\$86.74	\$38.79	\$25.61
NET OPERATING PROFIT	(\$135.00)	\$821.52	\$143.08	\$118.98	(\$22.49)	\$136.31
CAPITAL COSTS						
INTEREST ON OPERATING CAPITAL		\$2.92	\$2.44	\$9.80	\$3.23	\$0.68
INTEREST ON EQUIPMENT INVESTMENT		\$8.22	\$12.68	\$28.27	\$19.99	\$4.33
TOTAL CAPITAL COSTS	\$0.00	\$11.14	\$15.12	\$38.06	\$23.22	\$5.01
RETURN TO LAND AND RISK	(\$135.00)	\$810.38	\$127.95	\$80.92	(\$45.71)	\$131.30

Flex Computation 179.55 188.36 35.81

TABLE 13. Whole farm summary, Union County,  
Projected 2018

GROSS RETURNS		
ALFALFA HAY	375 ACRES	
CROP		\$450,938
WHEAT	420.00 ACRES	
CROP		\$147,840
GRAZING		\$16,800
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
CORN FOR GRAIN	127.50 ACRES	
CROP		\$94,350
GRAZING		\$2,550
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
GRAIN SORGHUM	127.5 ACRES	
CROP		\$34,876
GRAZING		\$638
DIRECT PAYMENT		\$0
COUNTER CYCLICAL PAYMENT		\$0
HAYGRAZER/MILLET	190 ACRES	
CROP		\$48,450
GROSS RETURN		<u>\$796,441</u>
CASH OPERATING EXPENSES		
SEED		\$35,373
FERTILIZER		\$52,876
CHEMICALS		\$14,129
CROP INSURANCE		\$150
OTHER PURCHASED INPUTS		\$171
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$24,449
FUEL-IRRIGATION		\$70,437
REPAIRS		\$6,334
CUSTOM CHARGES		\$0
LAND TAXES		\$249
OTHER EXPENSES		\$59,838
TOTAL CASH EXPENSES		<u>\$264,006</u>
RETURN OVER CASH EXPENSES		\$532,435
FIXED EXPENSES		\$43,982
TOTAL EXPENSES		<u>\$307,988</u>
NET FARM INCOME		\$488,452
LABOR AND MANAGEMENT COSTS		\$82,281
NET OPERATING PROFIT		\$406,171
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$3,910
INTEREST ON EQUIPMENT INVESTMENT		\$15,386
TOTAL CAPITAL COSTS		<u>\$19,296</u>
RETURN TO LAND AND RISK		<u>\$386,875</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$367,675	44.98%
\$750 /ACRE	\$358,075	33.21%
\$1,000 /ACRE	\$348,475	26.32%
\$1,250 /ACRE	\$338,875	21.80%
\$1,500 /ACRE	\$329,275	18.61%

\* 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)