

TABLE 1. Basic cost information for Union County, 2002.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.55
General & Irrigators	\$/hour	\$6.75
Purchased Inputs:		
Fertilizer:		
Nitrogen (N (N)	\$/pound	\$0.32
Phosphate (P205)	\$/pound	\$0.30
Potash (K2O)	\$/pound	\$0.19
Seed:		
Alfalfa	\$/pound	\$2.90
Wheat	\$/pound	\$0.16
Corn for Grain	\$/bag	\$89.75
Grain Sorghum	\$/pound	\$1.11
Haygrazer/Millet	\$/pound	\$0.38
Oats	\$/pound	\$0.23
Natural gas		
(service charge)	\$/MCF	\$3.28
Diesel fuel	\$/gallon	\$10.00
Gasoline	\$/gallon	\$1.05
Electricity	cents/KwHr	\$1.00
LP Gas	\$/gallon	5.45
		\$0.86
Baling Twine	\$/roll	\$25.00
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	8.00%
Land Interest Rate	percent	7.50%
Equipment Interest Rate	percent	8.00%
Real Interest Rate	percent	4.00%
Land Taxes	\$27.00 /acre	\$0.28
Personal Property Tax Rate - NR	\$/(\$1,000 (Assessed Value)	\$30.93
- R		\$27.08
Supervision Factors		
Field Crop-Irrigation	\$/labor hour	\$1.00
Field Crop-Equipment & General	\$/labor hour	\$0.50
Management Rate	percent	7.00%

BUDGET AREA..... UNION COUNTY, 2002.
 FARM SIZE..... 1280 ACRES
 IRRIGATION TYPE..... SPRINKLER
 NUMBER OF CROPS... 5

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		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	1280.00		25,650
ACRE FEET PER ACRE OF WATER RIGHTS			1.67

* DOUBLE-CROPPED

TABLE 1a. Overhead cost information for Union County, 2002.

ITEM		
Electricity (Domestic & Shop)	\$425.00 per month	\$5,100
Telephone	\$205.00 per month	\$2,460
Accounting & Legal		\$3,855
Misc. Supplies & Hand Tools		\$3,915
Pickup and Auto		
miles	31,000 @ \$0.345 per mile	\$10,695
Insurance		
- general liability (non-employee)		\$2,495
- fire/theft		\$2,000
Property Taxes		
- non-planted land		\$40
- other than land & machinery		\$955
Building repairs and maintenance		\$1,605
Dues, fees, publications		\$370
Farmstead Equipment		\$310
	Total	\$33,800
	Total per planted acre	\$31.07
	Total per dryland acre	\$6.21

TABLE 2. Pumping costs and data for irrigation wells, Union County, 2002.

INPUT DATA			
DELIVERY PSI:		DEPTH CHARACTERISTICS:	
SPRINKLER.....	30	STATIC...	180
		DRAW DOWN	50
		TOTAL HEAD....	230
		CASING...	400
GALLONS PER MINUTE (GPM).....	700		
WORK HORSEPOWER.....	53		
EFFICIENCY FACTOR:			
ELECTRICITY.....	0.540		
NATURAL GAS.....	0.140		
LP GAS.....	0.140		
DIESEL.....	0.180		
FUEL COST PER UNIT:			
ELECTRICITY.....	5.45	CENTS/KwHr	
NATURAL GAS.....	\$3.28	\$/MCF	
LP GAS.....	\$0.86	\$/GAL	
DIESEL.....	\$1.05	\$/GAL	

FUEL PUMPING COSTS

ELECTRIC WELL:	
COST PER HOUR.....	\$4.02
COST PER ACRE INCH.....	\$2.60
NATURAL GAS WELL:	
COST PER HOUR.....	\$3.49
COST PER ACRE INCH.....	\$2.26
LP GAS WELL:	
COST PER HOUR.....	\$9.03
COST PER ACRE INCH.....	\$5.84
DIESEL WELL:	
COST PER HOUR.....	\$5.58
COST PER ACRE INCH.....	\$3.60

TABLE 3. Equipment summary for a 1,280 acre sprinkler-irrigated farm with above average management, Union County, 2002.

EQUIPMENT	ANNUAL HOURS OF USE		VARIABLE COSTS					FIXED COSTS		
			TOTAL VALUE	FUEL & LUBRICANT	REPAIR	FUEL, LUBE PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HOUR
ITEM & SIZE	HOURS	NUMBER	VALUE	LUBRICANT	REPAIR	PER HR	PER HR	CIATION	TAXES	PER HOUR
TRACTOR 93 HP	118	1	\$23,030	\$839	\$760	\$7.11	\$6.44	\$1,226	\$221	\$12.25
TRACTOR 126 HP	429	1	\$39,725	\$3,189	\$3,588	\$7.43	\$8.36	\$2,740	\$353	\$7.20
TRACTOR 185 HP	241	1	\$47,275	\$2,621	\$973	\$10.90	\$4.05	\$5,995	\$464	\$26.85
COMBINE 145 HP	102	1	\$57,005	\$952	\$2,213	\$9.32	\$21.66	\$7,600	\$588	\$80.16
SWATHER 14 FT	270	1	\$5,100	\$1,063	\$0	\$3.93	\$0.00	\$1,450	\$149	\$5.92
ROUND BALER	287	1	\$3,500	\$0	\$0	\$0.00	\$0.00	\$550	\$57	\$2.11
PLANTER 8-ROW	31	1	\$4,060	\$239	\$7.81	\$1,100	\$57	\$37.80		
CHISEL HAYMIE 21 FT	78	1	\$1,650	\$53	\$0.68	\$220	\$17	\$3.04		
ROLLING CULTIVATOR 8-ROW	38	1	\$4,000	\$104	\$2.72	\$533	\$41	\$15.02		
DISC 28 FT	119	1	\$10,000	\$668	\$5.60	\$1,333	\$103	\$12.04		
DRILL 21 FT	80	1	\$4,500	\$815	\$10.22	\$900	\$46	\$11.86		
CORN HEAD 8-ROW	26	1	\$11,100	\$147	\$5.75	\$1,667	\$129	\$70.41		
GRAIN TABLE 22 FT	77	1	\$4,150	\$84	\$1.09	\$501	\$39	\$7.05		
SPRAYER 30 FT	26	1	\$1,500	\$54	\$2.13	\$200	\$15	\$8.45		
GRAIN CART	102	2	\$6,200	\$222	\$2.17	\$827	\$64	\$8.72		
SEMI-TRACTOR/TRAILER	84	1	\$16,000	\$1,056	\$1,093	\$12.53	\$12.96	\$3,200	\$165	\$39.92
CULTI-PACKER	9	1	\$3,200	\$30	\$3.20	\$427	\$33	\$49.16		
TANDEM-AXLE TRUCK	18	1	\$9,000	\$125	\$58	\$6.99	\$3.24	\$1,800	\$93	\$106.04
MINI-GATOR SPRINKLER	6779	1	\$2,800	\$602	\$136	\$0.09	\$0.02	\$373	\$29	\$0.06
CENTER PIVOT SPRINKLER	16583	7	\$105,000	\$7,836	\$15,008	\$0.47	\$0.91	\$14,000	\$1,083	\$0.91
NATURAL GAS WELL	16583	4	\$82,000	\$57,848	\$3,773	\$3.49	\$0.23	\$8,632	\$845	\$0.60
			\$440,795	\$76,130	\$30,015			\$55,274	\$4,591	

TABLE 4. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
Planting dates: August 1 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<u>PURCHASED INPUTS</u>									
SEED	\$2.90	20 LBS		\$58.00					\$58.00
OAT SEED	\$0.23	30 LBS		\$6.90					\$6.90
PUMP WATER*		3 AC. IN.							
SUBTOTAL				\$64.90					\$64.90
<u>PREHARVEST OPERATIONS</u>									
	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07 HR			\$0.53	\$0.76	\$0.68	\$2.72	\$4.69
CULTI-PACKER	93 HP	0.17 HR			\$1.28	\$1.21	\$1.64	\$10.44	\$14.57
DRILL	93 HP	0.12 HR			\$0.91	\$0.85	\$2.00	\$2.89	\$6.65
IRRIGATE (4X)		0.40 HR			\$2.70	\$7.68	\$2.20	\$2.93	\$15.51
SUBTOTAL		0.76 HR			\$5.42	\$10.51	\$6.51	\$18.99	\$41.42
<u>OVERHEAD EXPENSES</u>									
DOWNTIME		0.09 HR			\$0.68				\$0.68
EMPLOYEE BENEFITS					\$0.98				\$0.98
INSURANCE				\$0.11					\$0.11
SUPERVISION AND MANAGEMENT					\$8.02				\$8.02
SUBTOTAL		0.09		0.11	9.68				9.79
<u>TOTAL OPERATING EXPENSES</u>		0.85 HR		\$65.01	\$15.09	\$10.51	\$6.51	\$18.99	\$116.10

TABLE 5. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
Harvesting dates: June 1 - October 10

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
ALFALFA HAY	\$120.00	6.50	TONS (STACKED)						\$780.00
TOTAL									\$780.00
PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS		FIXED COST			TOTAL
NITROGEN (N)	\$0.32	30	LBS	\$9.60					\$9.60
PHOSPHATE (P2O5)	\$0.30	100	LBS	\$30.00					\$30.00
POTASH (K2O)	\$0.19	50	LBS	\$9.50					\$9.50
TRACE ELEMENTS	\$0.15	12	LBS	\$1.80					\$1.80
ESTABLISHMENT:Principal		7	YEARS				\$16.59		\$16.59
: Interest							\$4.78		\$4.78
BALING TWINE	\$25.00	0.57	ROLL	\$14.17					\$14.17
PUMP WATER*		40	AC. IN.						
SUBTOTAL				\$65.07			\$21.37		\$86.43
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (11X)		1.10	HR		\$7.43	\$102.43	\$29.29	\$39.05	\$178.19
SUBTOTAL		1.10	HR		\$7.43	\$102.43	\$29.29	\$39.05	\$178.19
HARVEST OPERATIONS									
SWATHER (4X)	13 FT SP	0.64	HR		\$4.83	\$2.52	\$0.00	\$3.79	\$11.13
BALER (4X)	126 HP	0.68	HR		\$5.13	\$5.05	\$5.68	\$6.33	\$22.20
SUBTOTAL		1.32	HR		\$9.97	\$7.57	\$5.68	\$10.12	\$33.33
OVERHEAD EXPENSES									
DOWNTIME		0.33	HR		\$2.49				\$2.49
EMPLOYEE BENEFITS					\$3.13				\$3.13
INSURANCE				\$0.35					\$0.35
LAND TAXES								\$0.28	\$0.28
SUPERVISION AND MANAGEMENT					\$56.36				\$56.36
OTHER EXPENSES				\$31.07					\$31.07
SUBTOTAL		0.33	HR	\$31.41	\$61.98			\$0.28	\$93.67
TOTAL OPERATING EXPENSES		2.75	HR	\$96.48	\$79.37	\$110.00	\$34.97	\$70.81	\$391.63
NET OPERATING PROFIT									\$388.37
INTEREST ON OPERATING CAPITAL	(	\$66.57	@	8.00%	)				\$5.33
INTEREST ON EQUIPMENT INVESTMENT									\$12.55
RETURN TO LAND AND RISK									\$370.49

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

BUDGET SUMMARY

GROSS RETURN		\$780.00	
VARIABLE OPERATING EXPENSES	\$241.45		
RETURN OVER VARIABLE EXPENSES		\$538.55	(GROSS MARGIN)
FIXED EXPENSES	\$70.81		
NET FARM INCOME		\$467.74	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$79.37		
NET OPERATING PROFIT		\$388.37	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$17.88		
RETURN TO LAND AND RISK		\$370.49	

TABLE 6. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
 Planting dates: August 15 - November 15
 Harvesting dates: July 1 - July 15

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
WHEAT	\$3.40	80.00	BUSHELS						\$272.00
ASCS DEFICIENCY	\$0.474	80.00	BUSHELS						\$37.92
ASCS DIVERSION	\$0.00								\$0.00
GRAZING	\$40.00	1.00	ACRE						\$40.00
TOTAL									\$349.92
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS		FIXED COST		TOTAL	
SEED	\$0.16	100	LBS	\$16.00					\$16.00
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
SUBTOTAL				\$37.60			\$5.00	\$42.72	
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07	HR		\$0.53	\$0.76	\$0.68	\$2.72	\$4.69
CHISEL	185 HP	0.09	HR		\$0.68	\$0.98	\$0.43	\$2.69	\$4.78
DISC	185 HP	0.07	HR		\$0.53	\$0.76	\$0.68	\$2.72	\$4.69
DRILL	126 HP	0.12	HR		\$0.91	\$0.89	\$2.23	\$2.29	\$6.31
IRRIGATE (7X)		0.70	HR		\$4.73	\$28.80	\$8.20	\$11.16	\$52.88
SUBTOTAL		1.05	HR		\$7.37	\$32.20	\$12.20	\$21.58	\$73.35
HARVEST OPERATIONS									
COMBINE	GRAIN TABLE	0.14	HR		\$1.06	\$1.30	\$3.19	\$12.21	\$17.76
GRAIN CART	93 HP	0.14	HR		\$1.06	\$0.99	\$1.20	\$2.94	\$6.19
TRUCK	SEMI	0.14	HR		\$1.06	\$1.75	\$1.81	\$5.59	\$10.21
SUBTOTAL		0.42	HR		\$0.00	\$3.17	\$4.05	\$6.20	\$20.73
OVERHEAD EXPENSES									
DOWNTIME		0.19	HR		\$1.45				\$1.45
EMPLOYEE BENEFITS					\$1.90				\$1.90
INSURANCE				\$0.21					\$0.21
LAND TAXES							\$0.28		\$0.28
SUPERVISION AND MANAGEMENT					\$25.58				\$25.58
OTHER EXPENSES				\$31.07					\$31.07
SUBTOTAL		0.19	HR		\$31.28	\$28.93		\$0.28	\$60.49
TOTAL OPERATING EXPENSES		1.66	HR		\$68.88	\$39.47	\$36.25	\$18.40	\$47.59
NET OPERATING PROFIT									\$139.20
INTEREST ON OPERATING CAPITAL	(	\$30.81	@	8.00%	)				\$2.47
INTEREST ON EQUIPMENT INVESTMENT									\$18.59
RETURN TO LAND AND RISK									\$118.15

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

BUDGET SUMMARY

GROSS RETURN		\$349.92	
VARIABLE OPERATING EXPENSES	\$123.53		
RETURN OVER VARIABLE EXPENSES		\$226.39	(GROSS MARGIN)
FIXED EXPENSES	\$47.59		
NET FARM INCOME		\$178.79	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$39.47		
NET OPERATING PROFIT		\$139.32	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$21.06		
RETURN TO LAND AND RISK		\$118.27	

TABLE 7. Corn for grain, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
 Planting dates: April 15 - May 15
 Harvesting dates: October 1 - November 15

ITEM	PRICE	YIELD							TOTAL	
GROSS RETURNS										
CORN FOR GRAIN	\$2.15	200.00	BUSHEL						\$430.00	
ASCS DEFICIENCY	\$0.269	200.00	BUSHEL						\$53.80	
ASCS DIVERSION	\$0.00	0.00	BUSHEL						\$0.00	
GRAZING	\$20.00	1.00	ACRE						\$20.00	
TOTAL									\$503.80	
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
SEED	\$1.12	26	000	\$29.17					\$29.17	
NITROGEN (N)	\$0.32	220	LBS	\$70.40					\$70.40	
PHOSPHATE (P2O5)	\$0.30	70	LBS	\$21.00					\$21.00	
POTASSIUM (K-MAG)	\$0.21	300	LBS	\$63.00					\$63.00	
INSECTICIDE	\$14.71	3	ACRE	\$44.14					\$44.14	
HERBICIDE	\$22.08	1	ACRE	\$22.08					\$22.08	
LIVESTOCK FAC & EQUIP						\$5.00			\$5.00	
PUMP WATER*		34	AC. IN.						\$0.00	
CROP INSURANCE	\$0.39								\$0.39	
SUBTOTAL				\$249.78		\$5.00			\$255.17	
PREHARVEST OPERATIONS		POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	185 HP	0.07	HR		\$0.53	\$0.76	\$0.68	\$2.72	\$4.69	
CHISEL	185 HP	0.09	HR		\$0.68	\$0.98	\$0.43	\$2.69	\$4.78	
DISC & SPRAY	185 HP	0.10	HR		\$0.76	\$1.09	\$1.18	\$4.73	\$7.76	
PLANTER	126 HP	0.12	HR		\$0.91	\$0.89	\$1.94	\$5.40	\$9.14	
ROLLING CULT (2X)	126 HP	0.20	HR		\$1.51	\$1.49	\$2.22	\$4.44	\$9.66	
SIDEDRESS	185 HP	0.17	HR		\$1.28	\$1.85	\$0.69	\$4.57	\$8.39	
IRRIGATE (16X)		1.60	HR		\$10.80	\$89.02	\$25.33	\$34.50	\$159.65	
SUBTOTAL			2.35 HR		\$16.46	\$96.08	\$32.45	\$59.05	\$204.05	
HARVEST OPERATIONS										
COMBINE	CORN HEAD	0.20	HR		\$1.51	\$1.86	\$5.48	\$30.11	\$38.97	
GRAIN CART	93 HP	0.20	HR		\$1.51	\$1.42	\$1.72	\$4.19	\$8.85	
TRUCK	SEMI	0.20	HR		\$1.51	\$2.51	\$2.59	\$7.98	\$14.59	
SUBTOTAL			0.60 HR		\$0.00	\$4.53	\$5.79	\$9.80	\$42.29	\$62.41
OVERHEAD EXPENSES										
DOWNTIME		0.30	HR		\$2.23				\$2.23	
EMPLOYEE BENEFITS					\$3.78				\$3.78	
INSURANCE				\$0.42					\$0.42	
LAND TAXES							\$0.28		\$0.28	
SUPERVISION AND MANAGEMENT					\$38.51				\$38.51	
OTHER EXPENSES				\$31.07					\$31.07	
SUBTOTAL			0.30 HR		\$31.49	\$44.51		\$0.28	\$76.28	
TOTAL OPERATING EXPENSES			3.25 HR		\$281.27	\$65.50	\$101.87	\$42.25	\$106.62	\$597.91
NET OPERATING PROFIT									(\$94.11)	
INTEREST ON OPERATING CAPITAL	(	\$158.52	@	8.00%	)				\$12.68
INTEREST ON EQUIPMENT INVESTMENT									\$41.33	
RETURN TO LAND AND RISK									(\$148.12)	

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

GROSS RETURN		\$503.80	
VARIABLE OPERATING EXPENSES	\$425.39		
RETURN OVER VARIABLE EXPENSES		\$78.41	(GROSS MARGIN)
FIXED EXPENSES	\$106.62		
NET FARM INCOME		(\$28.21)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$65.50		
NET OPERATING PROFIT		(\$93.72)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$54.01		
RETURN TO LAND AND RISK		(\$147.73)	

TABLE 8. Grain sorghum, sprinkler-irrigated, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
 Planting dates: May 15 - June 15
 Harvesting dates: October 15 - November 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
GRAIN SORGHUM	\$3.75	45.00 CWT						\$168.75
ASCS DEFICIENCY	\$0.58	45.00 CWT						\$26.10
ASCS DIVERSION	\$0.00	0.00 CWT						\$0.00
GRAZING	\$5.00	1.00 ACRE						\$5.00
TOTAL							\$199.85	
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	\$1.11	5 LBS	\$5.55					\$5.55
NITROGEN (N)	\$0.32	150 LBS	\$48.00					\$48.00
PHOSPHATE (P205)	\$0.30	50 LBS	\$15.00					\$15.00
HERBICIDE	\$22.08	1 ACRE	\$22.08					\$22.08
LIVESTOCK FAC & EQUIP					\$5.00			\$5.00
PUMP WATER*		12 AC. IN.						
CROP INSURANCE	\$0.39							\$0.39
SUBTOTAL			\$90.63		\$5.00			\$96.02
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	185 HP	0.07 HR		\$0.53	\$0.76	\$0.68	\$2.72	\$4.69
CHISEL	185 HP	0.09 HR		\$0.68	\$0.98	\$0.43	\$2.69	\$4.78
DISC & SPRAY	185 HP	0.10 HR		\$0.76	\$1.09	\$1.18	\$4.73	\$7.76
PLANTER	126 HP	0.12 HR		\$0.91	\$0.89	\$1.94	\$5.40	\$9.14
ROLLING CULT.	126 HP	0.10 HR		\$0.76	\$0.74	\$1.11	\$2.22	\$4.83
SIDEDRESS ANHYDROUS	185 HP	0.17 HR		\$1.28	\$1.85	\$0.69	\$4.57	\$8.39
IRRIGATE (6X)		0.60 HR		\$4.05	\$31.42	\$8.94	\$12.17	\$56.58
SUBTOTAL		1.25 HR		\$8.96	\$37.74	\$14.95	\$34.51	\$96.16
HARVEST OPERATIONS								
COMBINE	GRAIN TABLE	0.14 HR		\$1.06	\$1.30	\$3.19	\$12.21	\$17.76
GRAIN CART	93 HP	0.14 HR		\$1.06	\$0.99	\$1.20	\$2.94	\$6.19
TRUCK	2 T 18 FT	0.14 HR		\$1.06	\$0.98	\$0.45	\$14.85	\$17.33
SUBTOTAL		0.42 HR	\$0.00	\$3.17	\$3.28	\$4.84	\$29.99	\$41.28
OVERHEAD EXPENSES								
DOWNTIME		0.23 HR		\$1.70				\$1.70
EMPLOYEE BENEFITS				\$2.18				\$2.18
INSURANCE			\$0.24				\$0.24	
LAND TAXES						\$0.28	\$0.28	
SUPERVISION AND MANAGEMENT				\$15.25				\$15.25
OTHER EXPENSES			\$31.07				\$31.07	
SUBTOTAL		0.23 HR	\$31.31	\$19.13			\$0.28	\$50.72
TOTAL OPERATING EXPENSES		1.90 HR	\$121.93	\$31.26	\$41.02	\$19.80	\$69.78	\$284.18
NET OPERATING PROFIT								(\$84.33)
INTEREST ON OPERATING CAPITAL	(	\$59.36	@	8.00%				\$4.75
INTEREST ON EQUIPMENT INVESTMENT								\$28.57
RETURN TO LAND AND RISK								(\$117.64)

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

GROSS RETURN		\$199.85	
VARIABLE OPERATING EXPENSES	\$182.75		
RETURN OVER VARIABLE EXPENSES		\$17.10	(GROSS MARGIN)
FIXED EXPENSES	\$69.78		
NET FARM INCOME		(\$52.68)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$31.26		
NET OPERATING PROFIT		(\$83.94)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$33.31		
RETURN TO LAND AND RISK		(\$117.25)	

TABLE 9. Haygrazer/millet, dryland, budgeted per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.
 Planting dates: June 1 - June 15
 Harvesting dates: September 1 - September 15

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
HAY	\$90.00	1.50 TONS							\$135.00
TOTAL									\$135.00
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
SEED	\$0.38	6 LBS	\$2.28						\$2.28
HERBICIDE	\$12.31	1 ACRE	\$12.31						\$12.31
BALING TWINE	\$25.00	0.13 ROLL	\$3.33						\$3.33
SUBTOTAL			\$17.92						\$17.92
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
CHISEL	185 HP	0.09 HR		\$0.68	\$0.98	\$0.43	\$2.69	\$4.78	
DISC	185 HP	0.07 HR		\$0.53	\$0.76	\$0.68	\$2.72	\$4.69	
DRILL	126 HP	0.12 HR		\$0.91	\$0.89	\$2.23	\$2.29	\$6.31	
SUBTOTAL		0.28 HR		\$2.11	\$2.63	\$3.33	\$7.70	\$15.78	
HARVEST OPERATIONS									
SWATHER	14 FT SP	0.16 HR		\$1.21	\$0.63	\$0.00	\$0.95	\$2.78	
BALER	126 HP	0.17 HR		\$1.28	\$1.26	\$1.42	\$1.58	\$5.55	
SUBTOTAL		0.33 HR	\$0.00	\$2.49	\$1.89	\$1.42	\$2.53	\$8.33	
OVERHEAD EXPENSES									
DOWNTIME		0.15 HR		\$1.15				\$1.15	
EMPLOYEE BENEFITS				\$0.83				\$0.83	
INSURANCE			\$0.09					\$0.09	
LAND TAXES							\$0.28	\$0.28	
SUPERVISION AND MANAGEMENT				\$9.76				\$9.76	
OTHER EXPENSES			\$31.07					\$31.07	
SUBTOTAL		0.15 HR	\$31.16	\$11.74			\$0.28	\$43.17	
TOTAL OPERATING EXPENSES		0.43 HR	\$49.08	\$16.34	\$4.53	\$4.75	\$10.51	\$85.20	
NET OPERATING PROFIT								\$49.80	
INTEREST ON OPERATING CAPITAL	(	\$10.73	@	8.00%	)			\$0.86
INTEREST ON EQUIPMENT INVESTMENT								\$6.35	
RETURN TO LAND AND RISK								\$42.59	

BUDGET SUMMARY

GROSS RETURN		\$135	
VARIABLE OPERATING EXPENSES	\$58.35		
RETURN OVER VARIABLE EXPENSES		\$76.65	(GROSS MARGIN)
FIXED EXPENSES	\$10.51		
NET FARM INCOME		\$66.14	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$16.34		
NET OPERATING PROFIT		\$49.80	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$7.21		
RETURN TO LAND AND RISK		\$42.59	

TABLE 10. Summary of per acre costs and returns for a 1,280 acre farm with above average management, Union County, 2002.

	ALFALFA ESTABLISHMENT -----SPRINKLER-----	ALFALFA HAY	WHEAT	CORN FOR GRAIN	GRAIN SORGHUM	HAYGRAZER & MILLET -DRYLAND-
	TONS	BU	BU	CWT	TONS	
PRIMARY YIELD	6.50	80.00	200.00	45.00	1.50	
PRIMARY PRICE	120.00	3.40	2.15	3.75	90.00	
GOVERNMENT PAYMENTS	0.00	37.92	53.80	26.10	0.00	
SECOND INCOME	0.00	40.00	20.00	5.00	0.00	
GROSS RETURN	\$780.00	\$349.92	\$503.80	\$199.85	\$135.00	
CASH OPERATING EXPENSES						
SEED	\$64.90		\$16.00	\$29.17	\$5.55	\$2.28
FERTILIZER		\$50.90	\$21.60	\$154.40	\$63.00	
CHEMICALS				\$66.21	\$22.08	\$12.31
CROP INSURANCE			\$0.12	\$0.39	\$0.39	
OTHER PURCHASED INPUTS		\$14.17				\$3.33
CANAL WATER						
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$2.82	\$7.57	\$7.45	\$12.85	\$9.60	\$4.53
FUEL-IRRIGATION	\$7.68	\$102.43	\$28.80	\$89.02	\$31.42	
REPAIRS	\$6.51	\$34.97	\$18.40	\$42.25	\$19.80	\$4.75
CUSTOM CHARGES						\$0.00
LAND TAXES		\$0.28	\$0.28	\$0.28	\$0.28	\$0.28
OTHER EXPENSES	\$0.11	\$31.41	\$31.28	\$31.49	\$31.31	\$31.16
TOTAL CASH EXPENSES	\$82.02	\$241.72	\$123.93	\$426.06	\$183.42	\$58.63
RETURN OVER CASH EXPENSES	(\$82.02)	\$538.28	\$225.99	\$77.74	\$16.43	\$76.37
FIXED EXPENSES	\$18.99	\$70.53	\$47.32	\$106.35	\$69.50	\$10.23
TOTAL EXPENSES	\$101.01	\$312.26	\$171.25	\$532.41	\$252.92	\$68.86
NET FARM INCOME	(\$101.01)	\$467.74	\$178.67	(\$28.61)	(\$53.07)	\$66.14
LABOR AND MANAGEMENT COSTS	\$15.09	\$79.37	\$39.47	\$65.50	\$31.26	\$16.34
NET OPERATING PROFIT	(\$116.10)	\$388.37	\$139.20	(\$94.11)	(\$84.33)	\$49.80
CAPITAL COSTS						
INTEREST ON OPERATING CAPITAL		\$5.33	\$2.47	\$12.68	\$4.75	\$0.86
INTEREST ON EQUIPMENT INVESTMENT		\$12.55	\$18.59	\$41.33	\$28.57	\$6.35
TOTAL CAPITAL COSTS	\$0.00	\$17.88	\$21.06	\$54.01	\$33.31	\$7.21
RETURN TO LAND AND RISK	(\$116.10)	\$370.49	\$118.15	(\$148.12)	(\$117.64)	\$42.59

TABLE 11. Whole farm summary, Union County, 2002.

GROSS RETURNS		
ALFALFA HAY	375 ACRES	
CROP		\$292,500
WHEAT	420 ACRES	
CROP		\$114,240
GRAZING		\$16,800
ASCS DEFICIENCY		\$12,087
ASCS DIVERSION		\$0
CORN FOR GRAIN	128 ACRES	
CROP		\$54,825
GRAZING		\$2,550
ASCS DEFICIENCY		\$6,860
ASCS DIVERSION		\$0
GRAIN SORGHUM	127.5 ACRES	
CROP		\$21,516
GRAZING		\$638
ASCS DEFICIENCY		\$3,328
ASCS DIVERSION		\$0
HAYGRAZER/MILLET	190 ACRES	
CROP		\$25,650
GROSS RETURN		<u>\$550,992</u>
CASH OPERATING EXPENSES		
SEED		\$15,149
FERTILIZER		\$55,878
CHEMICALS		\$13,595
CROP INSURANCE		\$150
OTHER PURCHASED INPUTS		\$5,946
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$9,845
FUEL-IRRIGATION		\$66,286
REPAIRS		\$30,015
CUSTOM CHARGES		\$0
LAND TAXES		\$345
OTHER EXPENSES		\$38,849
TOTAL CASH EXPENSES		<u>\$236,057</u>
RETURN OVER CASH EXPENSES		\$314,935
FIXED EXPENSES		\$65,512
TOTAL EXPENSES		<u>\$301,569</u>
NET FARM INCOME		\$249,423
LABOR AND MANAGEMENT COSTS		\$62,614
NET OPERATING PROFIT		\$186,810
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$5,418
INTEREST ON EQUIPMENT INVESTMENT		\$22,635
TOTAL CAPITAL COSTS		<u>\$28,052</u>
RETURN TO LAND AND RISK		<u>\$158,757</u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$133,157	17.28%
\$750 /ACRE	\$120,357	13.34%
\$1,000 /ACRE	\$107,557	10.86%
\$1,250 /ACRE	\$94,757	9.15%
\$1,500 /ACRE	\$81,957	7.91%

* 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)