

TABLE 1. Basic cost information for Curry County, 2003.

Item			
Labor Wage Rate:			
Equipment operators	\$/hour		\$7.55
General & Irrigators	\$/hour		\$6.75
Purchased Inputs:			
Fertilizer:			
Nitrogen (N (N))	\$/pound		\$0.36
Phosphate (P205)	\$/pound		\$0.33
Seed:			
Alfalfa	\$/pound		\$3.00
Diesel fuel	\$/gallon		\$1.30
Gasoline	\$/gallon		\$1.35
Electricity (SWPS)	cents/KwH		5.50
LP Gas	\$/gallon		\$1.21
Natural Gas (Gas NM)	\$/MCF		\$3.28
Plastic Twine	\$/box		\$18.25
Employee Liability Insurance	\$/ \$1,000 wages		\$20.00
Employee Benefits	percent/w ages		18.00%
Labor Downtime	percent		25.00%
Financial Rates:			
Operating Capital Interest Rate	percent		8.00%
Land Interest Rate	percent		7.00%
Equipment Interest Rate	percent		8.00%
Real Interest Rate	percent		4.00%
Land Taxes	\$109.00 /acre (full value)		\$0.92
Personal Property Tax Rate - NR	\$/ \$1,000 (Assessed Value)		\$25.25
- R			\$25.25
Supervision Factors			
Field Crop-Irrigation	\$/labor hour		\$1.00
Field Crop-Equipment & General	\$/labor hour		\$0.50
Management Rate	percent		7.00%

BUDGET AREA.....	CURRY COUNTY, 2003.		
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 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 1a. Overhead cost information for Curry County, 2003.

ITEM			
Electricity (Domestic & Shop)		\$215.00 per month	\$2,580
Telephone		\$115.00 per month	\$1,380
Accounting & Legal			\$1,600
Misc. Supplies & Hand Tools			\$2,400
Pickup and Auto			
miles	20,000 @	\$0.365 per mile	\$7,300
Insurance			
- general liability (non-employee)			\$2,155
- fire/theft			\$1,725
Property Taxes			
- non-planted land			\$589
- other than land & machinery			\$620
Building repairs and maintenance			\$1,425
Dues, fees, publications			\$165
Farmstead Equipment			\$160
Total			\$22,099
Total Per Planted Acre			\$44.20

TABLE 2. Pumping costs and data for Curry County, 2003.

INPUT DATA

DELIVERY PSI:		DEPTH CHARACTERISTICS:	
SPRINKLER...	40	STATIC.....	300
		DRAW DOV.....	35
		TOTAL HEAD.....	335
		CASING.....	350
GALLONS PER MINUTE (GPM)...	800		
WORK HORSEPOWER.....	86		
EFFICIENCY FACTOR:			
ELECTRICITY.....	0.592		
NATURAL GAS.....	0.156		
LP GAS.....	0.156		
DIESEL.....	0.160		
FUEL COST PER HOUR:			
ELECTRICITY.....	5.50	CENTS/K wH	
NATURAL GAS.....	\$3.28	\$/MCF	
LP GAS.....	\$1.21	\$/GAL	
DIESEL.....	\$1.30	\$/GAL	

PUMPING COSTS

ELECTRIC WELL:	
COST PER HOUR.....	\$6.02
COST PER ACRE INCH	\$3.40
NATURAL GAS:	
COST PER HOUR.....	\$5.10
COST PER ACRE INCH	\$2.88
LP GAS WELL:	
COST PER HOUR.....	\$18.59
COST PER ACRE INCH	\$10.52
DIESEL WELL:	
COST PER HOUR.....	\$12.64
COST PER ACRE INCH	\$7.15

TABLE 3. Equipment summary for a 640 acre sprinkler-irrigated hay farm with above average management, Curry County, 2003.

EQUIPMENT	ANNUAL HOURS OF USE		VARIABLE COSTS					FIXED COSTS		
			TOTAL VALUE	FUEL AND LUBRICANT	REPAIR	FUEL,LUBE PER HR	REPAIR PER HR	DEPRECIATION	TOTAL TAXES PER HOUR	
ITEM & SIZE		NUMBER								
TRACTOR 96 HP	300	1	\$19,240	\$2,771	\$1,236	\$9.24	\$4.12	\$1,430	\$181	\$5.37
TRACTOR 140 HP	282	1	\$19,060	\$2,879	\$1,596	\$10.21	\$5.66	\$3,493	\$221	\$13.17
TRACTOR 185 HP	159	1	\$40,700	\$2,145	\$429	\$13.49	\$2.70	\$5,995	\$378	\$40.08
SWATHER 16 FT	275	1	\$24,740	\$1,338	\$3,783	\$4.87	\$13.76	\$3,621	\$305	\$14.27
DISC 14 FT	14	1	\$3,000		\$36		\$2.58	\$400	\$25	\$30.38
FERT SPREADER DEALER FURNI:	0									
CHISEL 7-PT	20	1	\$1,200		\$19		\$0.94	\$160	\$10	\$8.51
FLOAT 14 FT	32	1	\$600		\$3		\$0.09	\$60	\$4	\$1.99
BALER 1-TON	125	1	\$54,240		\$327		\$2.62	\$5,812	\$367	\$49.43
RAKE	300	3	\$4,650		\$474		\$1.58	\$465	\$39	\$1.68
FRONT END LOADER	250	1	\$2,550		\$0		\$0.00	\$255	\$21	\$1.11
SPRINKLER	7354	4	\$60,000	\$303	\$6,656	\$0.04	\$0.91	\$8,000	\$505	\$1.16
ELECTRIC WELL	7354	4	\$95,500	\$44,248	\$666	\$6.02	\$0.09	\$8,682	\$804	\$1.29
TOTAL			\$325,480	\$53,685	\$15,224			\$38,372	\$2,860	

TABLE 4. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, 2003.
Planting Dates: August 1 - September 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS						TOTAL
<u>PURCHASED INPUTS</u>									
SEED	\$3.00	30 LBS		\$90.00					\$90.00
NITROGEN (N)	\$0.36	20 LBS		\$7.20					\$7.20
PHOSPHATE (P2O5)	\$0.33	50 LBS		\$16.50					\$16.50
PUMP WATER*		5 AC. IN.							
SUBTOTAL				\$113.70					\$113.70
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL	
CHISEL	185 HP	0.20 HR		\$1.51	\$2.70	\$0.73	\$9.72	\$14.65	
DISC	185 HP	0.14 HR		\$1.06	\$1.89	\$0.74	\$9.86	\$13.55	
FLOAT (2X)	140 HP	0.32 HR		\$2.42	\$3.27	\$1.84	\$4.85	\$12.38	
PRE-IRRIGATE		0.10 HR		\$0.76	\$2.45	\$0.40	\$0.99	\$4.59	
SEED (CUSTOM)			\$9.00					\$9.00	
IRRIGATE (6X)		0.60 HR		\$4.05	\$14.69	\$2.41	\$5.93	\$27.08	
SUBTOTAL		1.36 HR	\$9.00	\$9.79	\$24.99	\$6.12	\$31.35	\$81.25	
<u>OVERHEAD EXPENSES</u>									
DOWNTIME		0.09 HR		\$0.64					\$0.64
EMPLOYEE BENEFITS				\$1.76					\$1.76
INSURANCE			\$0.03						\$0.03
SUPERVISION AND MANAGEMENT				\$14.63					\$14.63
SUBTOTAL		0.09 HR	\$0.03	\$17.03					\$17.06
TOTAL OPERATING EXPENSES		1.45 HR	\$122.73	\$26.82	\$24.99	\$6.12	\$31.35	\$212.01	

TABLE 5. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 640 acre farm with above average management, Curry County, 2003.
Harvesting Dates: May 15 - September 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$140.00	6.50 TONS (STACKED)						\$910.00
TOTAL							\$910.00	
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST	TOTAL	
NITROGEN (N)	\$0.36	100 LBS		\$36.00			\$36.00	
PHOSPHATE (P205)	\$0.33	200 LBS		\$66.00			\$66.00	
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	\$18.25	170 FT/TON		\$5.04			\$5.04	
ESTABLISHMENT: Principal		6 YEARS				\$35.33	\$35.33	
: Interest						\$8.97	\$8.97	
PUMP WATER*		25 AC. IN.						
SUBTOTAL				\$156.22		\$44.30	\$200.52	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
IRRIGATE		2.00 HR		\$13.50	\$85.68	\$14.08	\$34.60	\$147.85
SUBTOTAL		2.00 HR		\$13.50	\$85.68	\$14.08	\$34.60	\$147.85
HARVEST OPERATIONS								
SWATH ER (5X)	16 FT	0.55 HR		\$4.15	\$2.68	\$7.57	\$7.85	\$22.25
RAKE (5X)	96 HP	0.60 HR		\$4.53	\$5.54	\$3.42	\$4.23	\$17.72
BALER (5X)	185 HP	0.25 HR		\$1.89	\$3.37	\$1.33	\$22.38	\$28.97
FRONT END LOADER (5X)	140 HP	0.50 HR		\$3.78	\$5.11	\$2.83	\$7.14	\$18.85
SUBTOTAL		1.90 HR		\$14.35	\$16.70	\$15.14	\$41.60	\$87.78
OVERHEAD EXPENSES								
DOWNTIME		0.48 HR		\$3.59				\$3.59
EMPLOYEE BENEFITS				\$5.01				\$5.01
INSURANCE			\$0.56					\$0.56
LAND TAXES						\$0.92		\$0.92
SUPERVISION AND MANAGEMENT				\$66.65				\$66.65
OTHER EXPENSES			\$44.20					\$44.20
SUBTOTAL		0.48 HR	\$44.75	\$75.25		\$0.92		\$120.92
TOTAL OPERATING EXPENSES		4.38 HR	\$200.97	\$103.09	\$102.37	\$29.22	\$121.41	\$557.08
NET OPERATING PROFIT							\$352.92	
INTEREST ON OPERATING CAPITAL	(\$110.19	@	8.00%)		\$8.81	
INTEREST ON EQUIPMENT INVESTMENT							\$32.21	
RETURN TO LAND AND RISK							\$311.90	

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

BUDGET SUMMARY

GROSS RETURN		\$910.00	
VARIABLE OPERATING EXPENSES	\$332.57		
RETURN OVER VARIABLE EXPENSES	\$577.43		(GROSS MARGIN)
FIXED EXPENSES	\$121.41		
NET FARM INCOME	\$456.01		(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$103.09		
NET OPERATING PROFIT	\$352.92		(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$41.02		
RETURN TO LAND AND RISK	\$311.90		

TABLE 6. Summary of per acre costs and returns for a 640 acre farm with above average management, Curry County, 2003.

	ALFALFA ESTABLISHMENT -----SPRINKLER-----	ALFALFA HAY	
PRIMARY YIELD		6.50	TONS
PRIMARY PRICE		140.00	
GOVERNMENT PAYMENTS		0.00	
SECOND INCOME		0.00	
GROSS RETURN		\$910.00	
CASH OPERATING EXPENSES			
SEED	\$90.00		
FERTILIZER	\$23.70	\$116.25	
CHEMICALS		\$34.93	
CROP INSURANCE			
OTHER PURCHASED INPUTS		\$5.04	
CANAL WATER			
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$7.85	\$16.70	
FUEL-IRRIGATION	\$17.14	\$85.68	
REPAIRS	\$6.12	\$29.22	
CUSTOM CHARGES	\$9.00	\$0.00	
LAND TAXES		\$0.92	
OTHER EXPENSES	\$0.03	\$44.75	
TOTAL CASH EXPENSES	\$153.84	\$333.49	
RETURN OVER CASH EXPENSES	(\$153.84)	\$576.51	
FIXED EXPENSES	\$31.35	\$120.50	
TOTAL EXPENSES	\$185.19	\$453.99	
NET FARM INCOME	(\$185.19)	\$456.01	
LABOR AND MANAGEMENT COSTS	\$26.82	\$103.09	
NET OPERATING PROFIT	(\$212.01)	\$352.92	
CAPITAL COSTS			
INTEREST ON OPERATING CAPITAL		\$8.81	
INTEREST ON EQUIPMENT INVESTMENT		\$32.21	
TOTAL CAPITAL COSTS	\$0.00	\$41.02	
RETURN TO LAND AND RISK	(\$212.01)	\$311.90	

TABLE 7. Whole farm summary, Curry County, 2003.

GROSS RETURNS		
ALFALFA HAY	500 ACRES	
CROP		\$455,000
GROSS RETURN		\$455,000
CASH OPERATING EXPENSES		
		\$9,000
		\$60,493
CHEMICALS		\$17,466
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$2,521
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$9,134
FUEL-IRRIGATION		\$44,551
REPAIRS		\$15,224
CUSTOM CHARGES		\$900
LAND TAXES		\$459
OTHER EXPENSES		\$22,380
TOTAL CASH EXPENSES		\$182,128
RETURN OVER CASH EXPENSES		\$272,872
FIXED EXPENSES		\$45,717
TOTAL EXPENSES		\$227,845
NET FARM INCOME		\$227,155
LABOR AND MANAGEMENT COSTS		\$54,228
NET OPERATING PROFIT		\$172,927
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$4,407
INTEREST ON EQUIPMENT INVESTMENT		\$16,104
TOTAL CAPITAL COSTS		\$20,511
RETURN TO LAND AND RISK		\$152,415

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$500 /ACRE	\$139,615	26.79%
\$1,000 /ACRE	\$126,815	17.91%
\$1,500 /ACRE	\$114,015	13.45%
\$2,000 /ACRE	\$101,215	10.77%
\$2,500 /ACRE	\$88,415	8.98%

* 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)