

TABLE 1. Basic cost information for the Roswell-Hagerman area, Chaves County, 2002.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.55
General & Irrigators	\$/hour	\$6.45
Purchased Inputs:		
Fertilizer:		
Nitrogen (N)	\$/pound	\$0.32
Phosphate (P205)	\$/pound	\$0.30
Seed:		
Alfalfa	\$/pound	\$2.90
Cotton		
picker	\$/pound	\$0.70
stripper	\$/pound	\$0.65
Oat Hay	\$/pound	\$0.23
Corn	\$/bag	\$89.75
Plastic Twine:	\$/box	\$18.00
Natural gas	\$/MCF	\$3.28
Diesel fuel	\$/gallon	\$1.05
Gasoline	\$/gallon	\$1.00
Electricity	cents/KwHr	5.56
LP Gas	\$/gallon	\$0.86
Employee Liability Insurance	\$/wages	\$20.00
Employee Benefits	percent/wages	18.00%
Labor Downtime	percent	25.00%
Financial Rates:		
Operating Capital Interest Rate	percent	7.50%
Land Interest Rate	percent	6.50%
Equipment Interest Rate	percent	7.50%
Real Interest Rate	percent	4.00%
Land Taxes	\$185.00 /acre (full value)	\$1.49
Personal Property Tax Rate - NR	\$/ \$1,000 (Assessed	\$24.18
- R	Value)	\$20.02
Supervision Factors		
Field Crop-Irrigation	\$/labor hour	\$1.00
Field Crop-Equipment & General	\$/labor hour	\$0.50
Management Rate	percent	7.00%

BUDGET SIZE..... ROSWELL-HAGERMAN AREA, CHAVES COUNTY, 2002
 FARM SIZE..... 320 ACRES
 IRRIGATION TYPE..... SPRINKLER
 NUMBER OF CROPS... 5

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	35.00 *	16	560
ALFALFA	175.00	54	9,450
WHEAT	25.50	28	714
ARP	0.00		
FLEX IN OAT HAY	4.50	28	126
OAT HAY	25.00	21	525
PICKER COTTON	34.00	28	952
ARP	0.00		
FLEX IN OAT HAY	6.00	28	168
STRIPPER COTTON	34.00	28	952
ARP	0.00		
FLEX IN OAT HAY	6.00	28	168
ROADS, DITCHES, HOMESTEAD	10.0		
TOTAL	320.0		13,615
ACRE FEET PER ACRE OF WATER RIGHTS			3.55

* DOUBLE-CROPPED

TABLE 1a. Overhead cost information for Roswell-Hagerman area, Chaves County, 2002.

ITEM		
Electricity (Domestic & Shop)	\$205.00 per month	\$2,460
Telephone	\$105.00 per month	\$1,260
Accounting & Legal		\$1,490
Misc. Supplies & Hand Tools		\$2,250
Pickup and Auto		
miles	20,000 @ \$0.345 per mile	\$6,900
Insurance		
- general liability (non-employee)		\$1,610
- fire/theft		\$1,275
Property Taxes		
- non-planted land		\$17
- other than land & machinery		\$580
Building repairs and maintenance		\$1,225
Dues, fees, publications		\$370
Farmstead Equipment		\$160
Total		<u>\$19,597</u>
Total Per Planted Acre		\$63.22

TABLE 2. Pumping costs and data for irrigation wells, Roswell-Hagerman area, Chaves County, 2002.

INPUT DATA

DELIVERY PSI:		DEPTH CHARACTERISTICS:	
SPRINKLER.....	40	STATIC.....	150
		DRAW DOWN.....	30
		TOTAL HEAD.....	180
		CASING.....	600
GALLONS PER MINUTE (GPM).....	1000		
WORK HORSEPOWER.....	69		
EFFICIENCY FACTOR:			
ELECTRICITY.....	0.540		
NATURAL GAS.....	0.154		
LP GAS.....	0.154		
DIESEL.....	0.160		
FUEL COST PER UNIT:			
ELECTRICITY.....	5.56	CENTS/KwHr	
NATURAL GAS.....	\$3.28	\$/MCF	
LP GAS.....	\$0.86	\$/GAL	
DIESEL.....	\$1.05	\$/GAL	

PUMPING FUEL COSTS

ELECTRIC WELL:	
COST PER HOUR.....	\$5.32
COST PER ACRE INCH.....	\$2.41
NATURAL GAS WELL:	
COST PER HOUR.....	\$4.12
COST PER ACRE INCH.....	\$1.86
LP GAS WELL:	
COST PER HOUR.....	\$10.67
COST PER ACRE INCH.....	\$4.83
DIESEL WELL:	
COST PER HOUR.....	\$8.14
COST PER ACRE INCH.....	\$3.69

TABLE 3. Equipment summary for a 320 acre sprinkler-irrigated farm with above average management, Roswell-Hagerman area, 2002.

EQUIPMENT	ANNUAL HOURS OF USE		VARIABLE COSTS					FIXED COSTS		
			TOTAL VALUE	FUEL AND 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 96 HP	213	1	\$23,030	\$1,512	\$511	\$7.11	\$2.40	\$1,430	\$173	\$7.54
TRACTOR 130 HP	155	1	\$11,750	\$1,189	\$474	\$7.66	\$3.05	\$2,907	\$176	\$19.85
TRACTOR 145 HP	176	1	\$39,110	\$1,666	\$1,348	\$9.48	\$7.68	\$4,652	\$281	\$28.09
COTTON PICKER 2-ROW	42	1	\$12,630	\$268	\$1,055	\$6.35	\$25.03	\$5,960	\$360	\$149.91
COTTON STRIPPER MTD	42	1	\$20,520		\$136		\$3.22	\$767	\$46	\$19.28
SWATHER 16 FT	103	1	\$30,700	\$404	\$671	\$3.93	\$6.52	\$3,621	\$292	\$38.02
BALER 1-TON	63	1	\$54,240		\$110		\$1.74	\$5,812	\$351	\$97.32
PLANTER 4-ROW	18	1	\$3,400		\$61		\$3.47	\$680	\$27	\$40.01
ROLLING CULT 4-ROW	61	1	\$2,000		\$75		\$1.24	\$267	\$16	\$4.67
DISC OFFSET 14 FT	51	1	\$5,750		\$186		\$3.68	\$767	\$46	\$16.05
DRILL 13 FT	21	1	\$2,150		\$58		\$2.71	\$430	\$17	\$20.88
FLOAT 14 FT	11	1	\$600		\$0		\$0.02	\$60	\$4	\$5.85
LISTER 4-ROW	12	1	\$1,600		\$17		\$1.38	\$213	\$13	\$18.48
PLOW (MOLDBOARD) 4-16 IN	62	1	\$4,000		\$153		\$2.48	\$533	\$32	\$9.17
SHREDDER 4-ROW	10	1	\$2,500		\$7		\$0.70	\$333	\$20	\$37.13
COTTON TRAILER	85	4	\$4,800		\$12		\$0.14	\$640	\$39	\$7.98
SPRAYER 12 FT	18	1	\$1,375		\$31		\$1.73	\$183	\$11	\$11.00
FRONT END LOADER (ATTACH)	46	1	\$2,550		\$75		\$1.63	\$255	\$21	\$6.01
SEMI-TRUCK & FLATBED	108	1	\$15,500	\$597	\$1,560	\$5.51	\$14.42	\$3,100	\$125	\$29.79
RAKES	46	1	\$3,400		\$122		\$2.65	\$340	\$27	\$8.02
V-DITCHER	17	1	\$1,250		\$2		\$0.10	\$167	\$10	\$10.40
SIDE-ROLL SPRINKLER	6109	8	\$20,000		\$287		\$0.05	\$2,667	\$161	\$0.46
NATURAL GAS BOOSTER PUMP	6109	2	\$5,000	\$8,654	\$1,142	\$1.42	\$0.19	\$667	\$40	\$0.12
ELECTRIC WELL	6109	2	\$85,000	\$32,476	\$553	\$5.32	\$0.09	\$7,083	\$685	\$1.27
			\$352,855	\$46,767	\$8,647			\$43,533	\$2,975	

TABLE 4. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.

Planting dates: September 1 - September 31

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$2.90	30 LBS		\$87.00				\$87.00
INSECTICIDE (CUSTOM)	\$8.56	1 ACRE		\$8.56				\$8.56
PUMP WATER*		16 AC. IN.						
SUBTOTAL				\$95.56				\$95.56
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		\$1.28	\$1.61	\$1.93	\$7.50	\$12.33
PLOW	145 HP	0.48 HR		\$3.62	\$4.55	\$4.88	\$17.88	\$30.93
DISC (2X)	145 HP	0.34 HR		\$2.57	\$3.22	\$3.86	\$15.01	\$24.66
DRILL	96 HP	0.21 HR		\$1.59	\$1.49	\$1.07	\$5.97	\$10.12
DITCHER (2X)	130 HP	0.10 HR		\$0.76	\$0.77	\$0.32	\$3.02	\$4.86
IRRIGATE (2X)		0.50 HR		\$3.23	\$48.75	\$2.35	\$13.40	\$67.72
SUBTOTAL		1.80 HR		\$13.04	\$60.40	\$14.41	\$62.78	\$150.62
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.33 HR		\$2.45				\$2.45
EMPLOYEE BENEFITS				\$2.35				\$2.35
INSURANCE			\$0.26					\$0.26
SUPERVISION AND MANAGEMENT				\$18.33				\$18.33
SUBTOTAL		0.33 HR	\$0.26	\$23.13				\$23.39
TOTAL OPERATING EXPENSES		2.13 HR	\$95.82	\$36.17	\$60.40	\$14.41	\$62.78	\$269.58

TABLE 5. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.
Harvesting dates: May 20 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$130.00	6.50 TONS (DELIVERED)						\$845.00	
TOTAL								\$845.00	
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					FIXED COST	TOTAL
FERTILIZER (10-26-10)	\$0.20	200 LBS	\$40.00					\$40.00	
INSECTICIDE (CUSTOM)	\$19.06	2 X/ACRE	\$38.13					\$38.13	
HERBICIDE (CUSTOM)	\$25.48	1 X/ACRE	\$25.48					\$25.48	
PLASTIC TWINE	\$18.00	170 FT/TON	\$4.97					\$4.97	
ESTABLISHMENT: Principal		5 YEARS					\$53.92	\$53.92	
: Interest							\$9.75	\$9.75	
PUMP WATER*		54 AC. IN.							
SUBTOTAL			\$108.57				\$63.67	\$172.24	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (6X)		1.50 HR		\$9.68	\$164.53	\$7.93	\$45.21	\$227.35	
SUBTOTAL		1.50 HR		9.68	164.53	7.93	45.21	227.35	
HARVEST OPERATIONS									
SWATHER (5X)	16 FT	0.55 HR		\$4.15	\$2.16	\$3.58	\$20.91	\$30.81	
RAKE (5X)	96 HP	0.25 HR		\$1.89	\$1.78	\$1.26	\$3.89	\$8.82	
BALER (5X)	145 HP	0.35 HR		\$2.64	\$3.32	\$3.30	\$43.89	\$53.15	
FRONT END LOADER (5X)	130 HP	0.25 HR		\$1.89	\$1.91	\$1.17	\$6.47	\$11.44	
HAUL	SEMI	0.50 HR		\$3.78	\$2.76	\$7.21	\$14.90	\$28.63	
SUBTOTAL		1.90 HR		\$14.35	\$11.93	\$16.52	\$90.06	\$132.85	
OVERHEAD EXPENSES									
DOWNTIME		0.48 HR		\$3.59				\$3.59	
EMPLOYEE BENEFITS				\$4.32				\$4.32	
INSURANCE			\$0.48					\$0.48	
LAND TAXES							\$1.49	\$1.49	
SUPERVISION AND MANAGEMENT				\$61.60				\$61.60	
OTHER EXPENSES			\$63.22					\$63.22	
SUBTOTAL		0.48 HR	\$63.70	\$69.51			\$1.49	\$134.70	
TOTAL OPERATING EXPENSES		3.88 HR	\$172.27	\$93.53	\$176.46	\$24.45	\$200.43	\$667.14	
NET OPERATING PROFIT								\$177.86	
INTEREST ON OPERATING CAPITAL	(	99.77 @	7.50%)					\$7.48
INTEREST ON EQUIPMENT INVESTMENT								\$64.37	
RETURN TO LAND AND RISK								\$106.00	

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

BUDGET SUMMARY

GROSS RETURN		\$845.00	
VARIABLE OPERATING EXPENSES	\$373.18		
RETURN OVER VARIABLE EXPENSES		\$471.82	(GROSS MARGIN)
FIXED EXPENSES	\$200.43		
NET FARM INCOME		\$271.39	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$93.53		
NET OPERATING PROFIT		\$177.86	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$71.86		
RETURN TO LAND AND RISK		\$106.00	

TABLE 6. Wheat, sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.

Planting dates: August 15 - November 1

Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD						TOTAL		
GROSS RETURNS										
WHEAT	\$5.65	40.00	CWT					\$226.00		
ASCS DEFICIENCY	\$0.80	40.00	CWT					\$32.00		
ASCS DIVERSION	\$0.00							\$0.00		
GRAZING	\$44.00	1.00	ACRE					\$44.00		
TOTAL								\$302.00		
PURCHASED INPUTS										
PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS				TOTAL		
SEED	\$0.11	100	LBS	\$11.00				\$11.00		
NITROGEN (N)	\$0.32	150	LBS	\$48.00				\$48.00		
PHOSPHATE (P205)	\$0.30	50	LBS	\$15.00				\$15.00		
INSECTICIDE (CUSTOM)	\$18.19	1	ACRE	\$18.19				\$18.19		
PUMP WATER*		28	AC. IN.							
CROP INSURANCE	\$1.96			\$1.96				\$1.96		
SUBTOTAL								\$94.15		
PREHARVEST OPERATIONS										
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
PLOW	145 HP	0.48	HR		\$3.62	\$4.55	\$4.88	\$17.88	\$30.93	
DISC (2X)	145 HP	0.28	HR		\$2.11	\$2.66	\$3.18	\$12.36	\$20.31	
FERTILIZE	DEALER APPLIED									
DRILL	96 HP	0.21	HR		\$1.59	\$1.49	\$1.07	\$5.97	\$10.12	
DITCHER (2X)	130 HP	0.10	HR		\$0.76	\$0.77	\$0.32	\$3.02	\$4.86	
IRRIGATE (4X)		1.00	HR		\$6.45	\$85.31	\$4.11	\$23.44	\$119.32	
SUBTOTAL		2.07	HR		\$14.53	\$94.78	\$13.56	\$62.68	\$185.54	
HARVEST OPERATIONS										
COMBINE (CUSTOM)					\$14.18				\$14.18	
HAUL (CUSTOM)					\$8.00				\$8.00	
COMBINE & HAUL (CUSTOM)					\$22.18				\$22.18	
OVERHEAD EXPENSES										
DOWNTIME		0.27	HR		\$2.02				\$2.02	
EMPLOYEE BENEFITS					\$2.62				\$2.62	
INSURANCE					\$0.29				\$0.29	
LAND TAXES								\$1.49	\$1.49	
SUPERVISION AND MANAGEMENT					\$22.63				\$22.63	
OTHER EXPENSES					\$63.22				\$63.22	
SUBTOTAL		0.27	HR		\$63.51	\$27.26		\$1.49	\$92.26	
TOTAL OPERATING EXPENSES		2.34	HR		\$179.83	\$41.79	\$94.78	\$13.56	\$64.17	\$394.12
NET OPERATING PROFIT								(\$92.12)		
INTEREST ON OPERATING CAPITAL	(76.01	@	7.50%)				\$5.70	
INTEREST ON EQUIPMENT INVESTMENT									\$28.20	
RETURN TO LAND AND RISK								(\$126.02)		

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

BUDGET SUMMARY

GROSS RETURN		\$302.00	
VARIABLE OPERATING EXPENSES	\$288.17		
RETURN OVER VARIABLE EXPENSES		\$13.83	(GROSS MARGIN)
FIXED EXPENSES	\$64.17		
NET FARM INCOME		(\$50.33)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$41.79		
NET OPERATING PROFIT		(\$92.12)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$33.90		
RETURN TO LAND AND RISK		(\$126.02)	

TABLE 7. Oat hay, sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.

Planting dates: February 15 - April 1

Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD							TOTAL	
GROSS RETURNS										
OAT HAY	\$80.00	5.00 TONS (DELIVERED)							\$400.00	
TOTAL									\$400.00	
PURCHASED INPUTS		PRICE	QUANTITY		PURCHASED INPUTS			TOTAL		
SEED	\$0.23	80 LBS		\$18.40			\$18.40			
NITROGEN (N)	\$0.32	85 LBS		\$27.20			\$27.20			
PUMP WATER*		21 AC. IN.								
SUBTOTAL					\$45.60			\$45.60		
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC (2X)	145 HP	0.34	HR		\$2.57	\$3.22	\$3.86	\$15.01	\$24.66	
DRILL	96 HP	0.21	HR		\$1.59	\$1.49	\$1.07	\$5.97	\$10.12	
DITCHER (2X)	130 HP	0.10	HR		\$0.76	\$0.77	\$0.32	\$3.02	\$4.86	
IRRIGATE (4X)		1.00	HR		\$6.45	\$63.98	\$3.08	\$17.58	\$91.10	
SUBTOTAL		1.65	HR		\$11.36	\$69.47	\$8.33	\$41.58	\$130.74	
HARVEST OPERATIONS										
SWATHER	14 FT	0.16	HR		\$1.21	\$0.63	\$1.04	\$6.08	\$8.96	
RAKE	96 HP	0.05	HR		\$0.38	\$0.36	\$0.25	\$0.78	\$1.76	
BALER	145 HP	0.05	HR		\$0.38	\$0.47	\$0.47	\$6.27	\$7.59	
FRONT END LOADER	130 HP	0.05	HR		\$0.38	\$0.38	\$0.23	\$1.29	\$2.29	
HAUL	SEMI	0.50	HR		\$3.78	\$2.76	\$7.21	\$14.90	\$28.63	
SUBTOTAL		0.81	HR		\$6.12	\$4.60	\$9.21	\$29.32	\$49.24	
OVERHEAD EXPENSES										
DOWNTIME		0.37	HR		\$2.76				\$2.76	
EMPLOYEE BENEFITS					\$3.15				\$3.15	
INSURANCE					\$0.35				\$0.35	
LAND TAXES								\$1.49	\$1.49	
SUPERVISION AND MANAGEMENT					\$29.68				\$29.68	
OTHER EXPENSES					\$63.22				\$63.22	
SUBTOTAL		0.37	HR		\$63.56	\$35.58		\$1.49	\$100.64	
TOTAL OPERATING EXPENSES			2.83 HR		\$109.16	\$53.05	\$74.06	\$17.54	\$72.39	\$326.22
NET OPERATING PROFIT									\$73.78	
INTEREST ON OPERATING CAPITAL	(	43.40	@	7.50%	)				\$3.26
INTEREST ON EQUIPMENT INVESTMENT									\$32.58	
RETURN TO LAND AND RISK									\$37.94	

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

BUDGET SUMMARY

GROSS RETURN		\$400.00	
VARIABLE OPERATING EXPENSES	\$200.77		
RETURN OVER VARIABLE EXPENSES		\$199.23	(GROSS MARGIN)
FIXED EXPENSES	\$72.39		
NET FARM INCOME		\$126.84	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$53.05		
NET OPERATING PROFIT		\$73.78	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$35.84		
RETURN TO LAND AND RISK		\$37.94	

TABLE 8. Upland cotton (picker), sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.

Planting dates: April 15 - June 1

Harvesting dates: October 1 - December 31

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
COTTON LINT	\$0.420	750 LBS						\$315.00	
COTTON SEED	\$0.05	1,200 LBS						\$58.50	
ASCS DEFICIENCY	\$0.0599	750 LBS						\$44.93	
FARM LOAN DEFICIENCY	\$0.04	750 LBS						\$30.00	
TOTAL							\$448.43		
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
SEED	\$0.70	20 LBS	\$14.00					\$14.00	
NITROGEN (N)	\$0.32	32 LBS	\$10.24					\$10.24	
PHOSPHATE (P205)	\$0.30	40 LBS	\$12.00					\$12.00	
HERBICIDE	\$15.05	1 ACRE	\$15.05					\$15.05	
HERBICIDE (CUSTOM)	\$15.31	1 ACRE	\$15.31					\$15.31	
INSECTICIDE (CUSTOM)	\$19.06	2 X/ACRE	\$38.13					\$38.13	
CROP INSURANCE			\$1.47					\$1.47	
PUMP WATER*		28 AC. IN.							
SUBTOTAL			\$106.20					\$106.20	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	145 HP	0.17 HR		\$1.28	\$1.61	\$1.93	\$7.50	\$12.33	
PLOW	145 HP	0.48 HR		\$3.62	\$4.55	\$4.88	\$17.88	\$30.93	
FLOAT	130 HP	0.16 HR		\$1.21	\$1.23	\$0.49	\$4.11	\$7.04	
FERTILIZE	DEALER APPLIED								
LISTER	130 HP	0.18 HR		\$1.36	\$1.38	\$0.80	\$6.90	\$10.43	
PRE-IRRIGATE		0.25 HR		\$1.61	\$21.33	\$1.03	\$5.86	\$29.83	
CULT & SPRAY	96 HP	0.26 HR		\$1.96	\$1.85	\$1.40	\$6.03	\$11.24	
PLANTER	130 HP	0.26 HR		\$1.96	\$1.99	\$1.70	\$15.56	\$21.21	
CULTIVATOR (3X)	96 HP	0.63 HR		\$4.76	\$4.48	\$2.30	\$7.69	\$19.22	
HAND HOE (CUSTOM)			\$20.00					\$20.00	
DITCHER (2X)	130 HP	0.10 HR		\$0.76	\$0.77	\$0.32	\$3.02	\$4.86	
IRRIGATE (3X)		0.75 HR		\$4.84	\$63.98	\$3.08	\$17.58	\$89.49	
SUBTOTAL			3.24 HR	\$20.00	\$23.36	\$103.16	\$17.91	\$92.15	\$256.58
HARVEST OPERATIONS									
COTTON PICKER (2X)	2-ROW	1.24 HR		\$9.36	\$7.87	\$31.04	\$185.89	\$234.17	
HAUL (2X)	65 HP	1.00 HR		\$7.55	\$7.11	\$2.55	\$15.52	\$32.72	
GIN COTTON (CUSTOM)			\$81.68					\$81.68	
SUBTOTAL			2.24 HR	\$81.68	\$16.91	\$14.98	\$33.59	\$201.41	\$348.56
POSTHARVEST OPERATIONS									
SHREDDER	96 HP	0.14 HR		\$1.06	\$1.07	\$0.53	\$7.98	\$10.63	
SUBTOTAL			0.14 HR	\$1.06	\$1.07	\$0.53	\$7.98	\$10.63	
OVERHEAD EXPENSES									
DOWNTIME		1.16 HR		\$8.72				\$8.72	
EMPLOYEE BENEFITS				\$7.44				\$7.44	
INSURANCE			\$0.83					\$0.83	
LAND TAXES						\$1.49		\$1.49	
SUPERVISION AND MANAGEMENT				\$34.65				\$34.65	
OTHER EXPENSES			\$63.22					\$63.22	
SUBTOTAL			1.16 HR	\$64.04	\$50.81		\$1.49	\$116.34	
TOTAL OPERATING EXPENSES		6.78 HR	\$271.91	\$92.14	\$119.21	\$52.02	\$303.03	\$838.32	
NET OPERATING PROFIT							(\$389.89)		
INTEREST ON OPERATING CAPITAL	(	87.81	@	7.50%	)		\$6.59	
INTEREST ON EQUIPMENT INVESTMENT							\$32.58		
RETURN TO LAND AND RISK							(\$429.06)		

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

BUDGET SUMMARY

GROSS RETURN		\$448.43	
VARIABLE OPERATING EXPENSES	\$443.15		
RETURN OVER VARIABLE EXPENSES	\$5.28	(GROSS MARGIN)	
FIXED EXPENSES	\$303.03		
NET FARM INCOME	(\$297.75)	(RETURN TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$92.14		
NET OPERATING PROFIT	(\$389.89)	(RETURN TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$39.17		
RETURN TO LAND AND RISK	(\$429.06)		

TABLE 9. Upland cotton (stripper), sprinkler-irrigated, budgeted per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, 2002.

Planting dates: April 15 - June 1

Harvesting dates: October 1 - December 31

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
COTTON LINT	\$0.380	750 LBS						\$285.00	
COTTON SEED	\$0.05	1,200 LBS						\$58.50	
ASCS DEFICIENCY	\$0.0599	750 LBS						\$44.93	
FARM LOAN DEFICIENCY	\$0.04	750 LBS						\$30.00	
TOTAL							\$418.43		
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL	
SEED	\$0.65	25 LBS	\$16.25					\$16.25	
NITROGEN (N)	\$0.32	32 LBS	\$10.24					\$10.24	
PHOSPHORUS (P205)	\$0.30	40 LBS	\$12.00					\$12.00	
HERBICIDE	\$15.05	1 ACRE	\$15.05					\$15.05	
HERBICIDE (CUSTOM)	\$15.31	1 ACRE	\$15.31					\$15.31	
INSECTICIDE (CUSTOM)	\$14.51	2 X/ACRE	\$29.03					\$29.03	
CROP INSURANCE			\$1.47					\$1.47	
PUMP WATER*		28 AC. IN.							
SUBTOTAL			\$99.35					\$99.35	
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
DISC	145 HP	0.17 HR		\$1.28	\$1.61	\$1.93	\$7.50	\$12.33	
PLOW	145 HP	0.48 HR		\$3.62	\$4.55	\$4.88	\$17.88	\$30.93	
FLOAT	130 HP	0.16 HR		\$1.21	\$1.23	\$0.49	\$4.11	\$7.04	
FERTILIZE	DEALER APPLIED								
LISTER	130 HP	0.18 HR		\$1.36	\$1.38	\$0.80	\$6.90	\$10.43	
PRE-IRRIGATE		0.25 HR		\$1.61	\$21.33	\$1.03	\$5.86	\$29.83	
CULT & SPRAY	96 HP	0.26 HR		\$1.96	\$1.85	\$1.40	\$6.03	\$11.24	
PLANTER	130 HP	0.26 HR		\$1.96	\$1.99	\$1.70	\$15.56	\$21.21	
CULTIVATOR (3X)	96 HP	0.63 HR		\$4.76	\$4.48	\$2.30	\$7.69	\$19.22	
HAND HOE (CUSTOM)			\$20.00					\$20.00	
DITCHER (2X)	130 HP	0.10 HR		\$0.76	\$0.77	\$0.32	\$3.02	\$4.86	
IRRIGATE (3X)		0.75 HR		\$4.84	\$63.98	\$3.08	\$17.58	\$89.49	
SUBTOTAL			3.24 HR	\$20.00	\$23.36	\$103.16	\$17.91	\$92.15	\$256.58
HARVEST OPERATIONS									
COTTON STRIPPER	130 HP	1.24 HR		\$9.36	\$9.50	\$7.78	\$48.52	\$75.16	
HAUL	96 HP	1.50 HR		\$11.33	\$10.66	\$3.82	\$23.28	\$49.08	
GIN COTTON (CUSTOM)			\$107.48					\$107.48	
SUBTOTAL			2.74 HR	\$107.48	\$20.69	\$20.15	\$11.60	\$71.80	\$231.72
POSTHARVEST OPERATIONS									
SHREDDER	96 HP	0.14 HR		\$1.06	\$1.07	\$0.53	\$7.98	\$10.63	
SUBTOTAL			0.14 HR	\$1.06	\$1.07	\$0.53	\$7.98	\$10.63	
OVERHEAD EXPENSES									
DOWNTIME		1.28 HR		\$9.66				\$9.66	
EMPLOYEE BENEFITS				\$8.12				\$8.12	
INSURANCE			\$0.90				\$0.90		
LAND TAXES						\$1.49	\$1.49		
SUPERVISION AND MANAGEMENT				\$32.80				\$32.80	
OTHER EXPENSES			\$63.22				\$63.22		
SUBTOTAL			1.28 HR	\$64.12	\$50.58		\$1.49	\$116.19	
TOTAL OPERATING EXPENSES		7.40 HR	\$290.94	\$95.69	\$124.39	\$30.03	\$173.42	\$714.47	
NET OPERATING PROFIT								(\$296.05)	
INTEREST ON OPERATING CAPITAL	(	82.99	@	7.50%				\$6.22
INTEREST ON EQUIPMENT INVESTMENT								\$88.14	
RETURN TO LAND AND RISK								(\$390.41)	

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

BUDGET SUMMARY

GROSS RETURN		\$418.43	
VARIABLE OPERATING EXPENSES	\$445.36		
RETURN OVER VARIABLE EXPENSES		(\$26.93)	(GROSS MARGIN)
FIXED EXPENSES	\$173.42		
NET FARM INCOME		(\$200.36)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$95.69		
NET OPERATING PROFIT		(\$296.05)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$94.37		
RETURN TO LAND AND RISK		(\$390.41)	

TABLE 10. Summary of per acre costs and returns for a 320 acre farm with above average management, Roswell-Hagerman area, Chaves County, 2002.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	WHEAT -----SPRINKLER-----	OAT HAY	PICKER COTTON	STRIPPER COTTON
		TONS	CWT	TONS	LBS	LBS
PRIMARY YIELD		6.50	40.00	5.00	750.00	750.00
PRIMARY PRICE		130.00	5.65	80.00	0.42	0.38
GOVERNMENT PAYMENTS		0.00	32.00	0.00	74.93	74.93
SECOND INCOME		0.00	44.00	0.00	58.50	58.50
GROSS RETURN		\$845.00	\$302.00	\$400.00	\$448.43	\$418.43
CASH OPERATING EXPENSES						
SEED	\$87.00		\$11.00	\$18.40	\$14.00	\$16.25
FERTILIZER	\$8.56	\$40.00	\$63.00	\$27.20	\$22.24	\$22.24
CHEMICALS		\$63.60	\$18.19		\$68.49	\$59.39
CROP INSURANCE			\$1.96		\$1.47	\$1.47
OTHER PURCHASED INPUTS		\$4.97				
CANAL WATER						
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$11.65	\$11.93	\$9.46	\$10.08	\$33.90	\$39.07
FUEL-IRRIGATION	\$48.75	\$164.53	\$85.31	\$63.98	\$85.31	\$85.31
REPAIRS	\$14.41	\$24.45	\$13.56	\$17.54	\$52.02	\$30.03
CUSTOM CHARGES			\$22.18		\$101.68	\$127.48
LAND TAXES		\$1.49	\$1.49	\$1.49	\$1.49	\$1.49
OTHER EXPENSES	\$0.26	\$63.70	\$63.51	\$63.56	\$64.04	\$64.12
TOTAL CASH EXPENSES	\$170.62	\$374.67	\$289.66	\$202.26	\$444.64	\$446.85
RETURN OVER CASH EXPENSES	(\$170.62)	\$470.33	\$12.34	\$197.74	\$3.79	(\$28.42)
FIXED EXPENSES	\$62.78	\$198.94	\$62.68	\$70.90	\$301.54	\$171.93
TOTAL EXPENSES	\$233.40	\$573.61	\$352.33	\$273.16	\$746.18	\$618.78
NET FARM INCOME	(\$233.40)	\$271.39	(\$50.33)	\$126.84	(\$297.75)	(\$200.36)
LABOR AND MANAGEMENT COSTS	\$36.17	\$93.53	\$41.79	\$53.05	\$92.14	\$95.69
NET OPERATING PROFIT	(\$269.58)	\$177.86	(\$92.12)	\$73.78	(\$389.89)	(\$296.05)
CAPITAL COSTS						
INTEREST ON OPERATING CAPITAL		\$7.48	\$5.70	\$3.26	\$6.59	\$6.22
INTEREST ON EQUIPMENT INVESTMENT		\$64.37	\$28.20	\$32.58	\$32.58	\$88.14
TOTAL CAPITAL COSTS	\$0.00	\$71.86	\$33.90	\$35.84	\$39.17	\$94.37
RETURN TO LAND AND RISK	(\$269.58)	\$106.00	(\$126.02)	\$37.94	(\$429.06)	(\$390.41)

TABLE 11. Whole farm summary, Roswell-Hagerman Area, Chaves County, 2002.

GROSS RETURNS		
ALFALFA HAY	175 ACRES	
CROP		\$147,875
WHEAT	26 ACRES	
CROP		\$5,763
GRAZING		\$1,122
ASCS DEFICIENCY		\$816
ASCS DIVERSION		\$0
OAT HAY	42 ACRES	
CROP		\$16,600
UPLAND COTTON (PICKER)	34 ACRES	
COTTON LINT		\$10,710
COTTON SEED		\$1,989
ASCS DEFICIENCY		\$786
ASCS DIVERSION		\$1,020
UPLAND COTTON (STRIPPER)	34 ACRES	
COTTON LINT		\$9,690
COTTON SEED		\$1,989
ASCS DEFICIENCY		\$1,527
ASCS DIVERSION		\$1,020
GROSS RETURN		<u>\$200,908</u>
CASH OPERATING EXPENSES		
SEED		\$5,118
FERTILIZER		\$11,547
CHEMICALS		\$15,942
CROP INSURANCE		\$150
OTHER PURCHASED INPUTS		\$870
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$5,636
FUEL-IRRIGATION		\$41,131
REPAIRS		\$8,647
CUSTOM CHARGES		\$8,357
LAND TAXES		\$462
OTHER EXPENSES		\$19,771
TOTAL CASH EXPENSES		<u>\$117,630</u>
RETURN OVER CASH EXPENSES		\$83,278
FIXED EXPENSES		\$48,215
TOTAL EXPENSES		\$165,845
NET FARM INCOME		\$35,063
LABOR AND MANAGEMENT COSTS		\$27,287
NET OPERATING PROFIT		\$7,775
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$2,025
INTEREST ON EQUIPMENT INVESTMENT		\$17,442
TOTAL CAPITAL COSTS		<u>\$19,467</u>
RETURN TO LAND AND RISK		<u><u>(\$11,692)</u></u>

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	(\$24,492)	1.16%
\$3,000 /ACRE	(\$50,092)	0.59%
\$5,000 /ACRE	(\$75,692)	0.40%
\$7,000 /ACRE	(\$101,292)	0.30%
\$9,000 /ACRE	(\$126,892)	0.24%

* 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)