

TABLE 1. Basic cost information for the Artesia-Lake Arthur area, 2002.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$7.30
General & Irrigators	\$/hour	\$6.70
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
Barley	\$/pound	\$0.24
Oats	\$/pound	\$0.23
Red Chile	\$/pound	\$24.00
Wire:	\$/lb.	\$0.37
Natural gas	\$/MCF	\$3.28
(service charge)	\$/month	\$10.00
Diesel fuel	\$/gallon	\$1.05
Gasoline	\$/gallon	\$1.00
Electricity	cents/KwHr	5.56
LP Gas	\$/gallon	\$0.86
Employee Liability Insurance	\$/ \$1000 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	\$217.50 /acre (full value)	\$1.75
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
Vegetable Crop-Irrigation	\$/labor hour	\$2.90
Vegetable Crop-Equip. & General	\$/labor hour	\$1.00
Management Rate		
Field Crops	percent/GR	7.00%
Vegetable Crops	percent/TOE	10.00%

BUDGET AREA..... ARTESIA-LAKE ARTHUR AREA, 2002.
 FARM SIZE..... 500 ACRES
 IRRIGATION TYPE..... FLOOD
 NUMBER OF CROPS.. 6

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	52.00 *	8	416
ALFALFA	260.00	50	13,000
BARLEY	17.00	28	476
ARP	0.00		
FLEX IN PICKER COTTON	3.00	30	90
OAT HAY	20.00	28	560
PICKER COTTON	68.00	30	2,040
ARP	0.00		
FLEX IN PICKER COTTON	12.00	30	360
STRIPPER COTTON	68.00	30	2,040
ARP	0.00		
FLEX IN PICKER COTTON	12.00	30	360
RED CHILE	40.00	48	1,920
TOTAL	500.00		21,262
ACRE FEET PER ACRE OF WATER RIGHTS			3.54

*DOUBLE-CROPPED

TABLE 1a. Overhead cost information for the Artesia-Lake Arthur area, 2002.

ITEM		
Electricity (Domestic & Shop)		\$2,160
Telephone		\$1,320
Accounting & Legal		\$1,480
Misc. Supplies & Hand Tools		\$1,390
Pickup and Auto		\$6,900
miles	20,000 @	\$0.345 per mile
Insurance		
- general liability (non-employee)		\$1,660
- fire/theft		\$1,480
Property Taxes		
- non-planted land		\$0
- other than land & machinery		\$5,835
Building repairs and maintenance		\$1,250
Dues, fees, publications		\$380
Farmstead Equipment		\$165
Total		\$24,020
Total Per Planted Acre		\$48.04

TABLE 2. Pumping costs and data for irrigation wells, Artesia-Lake Arthur area, 2002.

INPUT DATA		DEPTH CHARACTERISTICS:	
		STATIC.....	60
		DRAW DOWN.....	20
		TOTAL HEAD.....	80
		CASING.....	250
GALLONS PER MINUTE (GPM).....	500		
WORK HORSEPOWER.....	10		
EFFICIENCY FACTOR:			
ELECTRICITY.....	0.470		
NATURAL GAS.....	0.120		
LP GAS.....	0.120		
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	
TOTAL FUEL COSTS:			
ELECTRIC WELL:			
COST PER HOUR.....	\$0.92		
COST PER ACRE INCH.....	\$0.83		
NATURAL GAS WELL:			
COST PER HOUR.....	\$0.80		
COST PER ACRE INCH.....	\$0.72		
LP GAS WELL:			
COST PER HOUR.....	\$2.03		
COST PER ACRE INCH.....	\$1.84		
DIESEL WELL:			
COST PER HOUR.....	\$1.22		
COST PER ACRE INCH.....	\$1.10		

TABLE 3. Equipment summary for a 500 acre flood-irrigated farm with above average management, Artesia-Lake Arthur area, 2002.

EQUIPMENT	ANNUAL HOURS		VARIABLE COSTS					FIXED COSTS		
	OF USE	NUMBER	TOTAL VALUE	FUEL AND LUBRICANT	REPAIR	FUEL,LUBE PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HOUR
TRACTOR 40 HP	65	1	\$1,800	\$194	\$11	\$2.99	\$0.18	\$50	\$10	\$0.92
TRACTOR 65 HP	355	1	\$2,400	\$1,727	\$398	\$4.86	\$1.12	\$138	\$22	\$0.45
TRACTOR 70 HP	178	1	\$8,400	\$691	\$309	\$3.88	\$1.73	\$705	\$85	\$4.44
TRACTOR 96 HP	325	1	\$23,030	\$2,425	\$1,506	\$7.46	\$4.63	\$1,430	\$173	\$4.93
TRACTOR 145 HP	413	1	\$39,110	\$3,914	\$3,111	\$9.48	\$7.54	\$4,652	\$281	\$11.95
COTTON PICKER 4-ROW	70	1	\$78,640	\$446	\$3,418	\$6.35	\$48.62	\$9,350	\$754	\$143.72
COTTON STRIPPER MTD	42	1	\$2,520		\$136		\$3.22	\$767	\$46	\$19.28
SWATHER 16 FT	145	1	\$30,700	\$571	\$1,157	\$3.93	\$7.97	\$3,621	\$292	\$26.94
BALE WAGON S.P.	264	1	\$15,480	\$2,047	\$5,378	\$7.75	\$20.37	\$2,250	\$181	\$9.21
BALER PTO	330	2	\$8,640		\$617		\$1.87	\$1,100	\$89	\$3.60
PLANTER 4-ROW	53	1	\$3,400		\$352		\$6.66	\$680	\$27	\$13.40
CULTIVATOR 4-ROW	187	1	\$1,500		\$187		\$1.00	\$200	\$12	\$1.13
DISC 12 FT	133	1	\$2,250		\$168		\$1.26	\$300	\$18	\$2.39
DRILL 12 FT	30	1	\$2,200		\$93		\$3.12	\$440	\$18	\$15.46
PLANE 14 FT	36	1	\$2,750		\$24		\$0.66	\$367	\$22	\$10.79
FLOAT 14 FT	49	1	\$600		\$7		\$0.14	\$60	\$4	\$1.31
PLOW (MOLDBOARD) 4-16 IN	140	1	\$4,000		\$0		\$0.00	\$533	\$32	\$4.04
LISTER	37	1	\$1,600		\$40		\$1.09	\$213	\$13	\$6.19
SHREDDER 4-ROW	28	1	\$2,500		\$40		\$1.40	\$333	\$20	\$12.44
COTTON TRAILER	146	7	\$8,400		\$21		\$0.14	\$1,120	\$68	\$8.13
VEGETABLE TRAILER	36	1	\$1,200		\$11		\$0.31	\$160	\$10	\$4.71
TWIN RAKE 8 FT EACH	65	1	\$3,400		\$199		\$3.06	\$340	\$27	\$5.65
SLED	24	1	\$375		\$7		\$0.28	\$50	\$3	\$2.17
NATURAL GAS WELL	19,245	7	\$77,000	\$15,402	\$3,849	\$0.80	\$0.20	\$11,000	\$621	\$0.65
			\$321,895	\$27,417	\$21,037			\$39,859	\$2,828	

TABLE 4. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.

Planting dates: September 1 - September 30

ITEM	PRICE	QUANTITY	PURCHASED INPUTS	TOTAL				
PURCHASED INPUTS								
SEED	\$2.90	20 LBS	\$58.00	\$58.00				
HERBICIDE	\$31.64	1 ACRE	\$31.64	\$31.64				
PUMP WATER*		8 AC. IN.						
SUBTOTAL			\$89.64	\$89.64				
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	145 HP	0.48 HR		\$3.50	\$4.55	\$3.62	\$7.67	\$19.35
DISC (2X)	145 HP	0.34 HR		\$2.48	\$3.22	\$2.99	\$4.88	\$13.57
PLANE (3X)	145 HP	0.57 HR		\$4.16	\$5.41	\$4.67	\$12.96	\$27.20
DISC	145 HP	0.17 HR		\$1.24	\$1.61	\$1.50	\$2.44	\$6.79
FLOAT (2X)	70 HP	0.32 HR		\$2.34	\$1.24	\$0.60	\$1.84	\$6.01
DRILL (2X)	65 HP	0.42 HR		\$3.07	\$2.04	\$1.78	\$6.68	\$13.57
IRRIGATE (2X)		1.00 HR		\$6.70	\$5.80	\$1.45	\$4.69	\$18.63
SUBTOTAL		3.30 HR		\$23.49	\$23.87	\$16.61	\$41.16	\$105.13
OVERHEAD EXPENSES								
DOWNTIME		0.46 HR		\$3.32				\$3.32
EMPLOYEE BENEFITS				\$4.23				\$4.23
INSURANCE			\$0.47					\$0.47
SUPERVISION AND MANAGEMENT				\$15.54				\$15.54
SUBTOTAL		0.46 HR	\$0.47	\$23.09				\$23.56
TOTAL OPERATING EXPENSES		3.76 HR	\$90.11	\$46.58	\$23.87	\$16.61	\$41.16	\$218.33

TABLE 5. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.
Harvesting dates: May 5 - November 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
ALFALFA HAY	\$120.00	6.50 TONS (STACKED)						\$780.00
GRAZING	\$40.00							\$40.00
TOTAL							\$820.00	
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS		FIXED COST		TOTAL	
INSECTICIDE (CUSTOM)	\$24.44	2 X/ACRE	\$48.88				\$48.88	
HERBICIDE (CUSTOM)	\$35.51	1 ACRE	\$35.51				\$35.51	
INSECT SCOUTING	\$5.25	1 ACRE	\$5.25				\$5.25	
FERTILIZER (5-26-30)	\$0.21	200 LBS	\$42.00				\$42.00	
WIRE	\$0.37	56 LBS	\$20.69				\$20.69	
DRYING AGENT (AGRI-DRY)	\$7.87	1 /TON	\$51.15				\$51.15	
ESTABLISHMENT: Principal		5 YEARS				\$43.67	\$43.67	
: Interest						\$8.94	\$8.94	
PUMP WATER*		50 AC. IN.						
SUBTOTAL			\$203.48			\$52.61	\$256.09	
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
IRRIGATE (7X)		3.50 HR		\$23.45	\$36.22	\$9.05	\$29.30	\$98.02
SUBTOTAL				23.45	36.22	9.05	29.30	98.02
HARVEST OPERATIONS								
SWATHER (5X)	16 FT SP	0.55 HR		\$4.02	\$2.16	\$4.38	\$14.82	\$25.38
RAKE (5X)	40 HP	0.25 HR		\$1.83	\$0.75	\$0.81	\$1.64	\$5.03
BALER (5X)	96 HP	1.25 HR		\$9.13	\$9.33	\$8.13	\$10.67	\$37.25
BALE WAGON (5X)	SP	1.00 HR		\$7.30	\$7.75	\$20.37	\$9.21	\$44.63
SUBTOTAL				\$22.27	\$19.99	\$33.69	\$36.34	\$112.29
OVERHEAD EXPENSES								
DOWNTIME		0.70 HR		\$5.11				\$5.11
EMPLOYEE BENEFITS				\$8.23				\$8.23
INSURANCE			\$0.91					\$0.91
LAND TAXES							\$1.75	\$1.75
SUPERVISION AND MANAGEMENT				\$62.43				\$62.43
OTHER EXPENSES			\$48.04					\$48.04
SUBTOTAL				\$75.76			\$1.75	\$126.47
TOTAL OPERATING EXPENSES				\$121.48	\$56.21	\$42.74	\$120.00	\$592.87
NET OPERATING PROFIT							\$227.13	
INTEREST ON OPERATING CAPITAL	(	117.53 @	8.00%)					\$9.40
INTEREST ON EQUIPMENT INVESTMENT								\$29.56
RETURN TO LAND AND RISK							\$188.17	

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

BUDGET SUMMARY

GROSS RETURN		\$820.00	
VARIABLE OPERATING EXPENSES	\$351.39		
RETURN OVER VARIABLE EXPENSES		\$468.61	(GROSS MARGIN)
FIXED EXPENSES	\$120.00		
NET FARM INCOME		\$348.61	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$121.48		
NET OPERATING PROFIT		\$227.13	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$38.96		
RETURN TO LAND AND RISK		\$188.17	

TABLE 6. Barley, flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur, 2002.
Planting dates: August 20 - September 30
Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
BARLEY	\$3.30	35.00 CWT						\$115.50
ASCS DEFICIENCY	\$0.206	35.00 CWT						\$7.21
ASCS DIVERSION	\$0.00							\$0.00
GRAZING	\$40.00							\$40.00
TOTAL								\$162.71
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	\$0.24	110 LBS	\$26.40					\$26.40
NITROGEN (N)	\$0.32	150 LBS	\$48.00					\$48.00
INSECTICIDE (CUSTOM)	\$19.54	1 ACRE	\$19.54					\$19.54
PUMP WATER*		28 AC. IN.						
CROP INSURANCE	\$2.94		\$2.94					\$2.94
SUBTOTAL			\$96.88					\$96.88
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	145 HP	0.48 HR		\$3.50	\$4.55	\$3.62	\$7.67	\$19.35
DISC	145 HP	0.17 HR		\$1.24	\$1.61	\$1.50	\$2.44	\$6.79
FLOAT	70 HP	0.16 HR		\$1.17	\$0.62	\$0.30	\$0.92	\$3.01
FERTILIZE	VALER APPLIED							
DRILL	70 HP	0.21 HR		\$1.53	\$0.81	\$1.02	\$4.18	\$7.55
IRRIGATE (4X)		2.00 HR		\$13.40	\$20.28	\$5.07	\$16.41	\$55.16
SUBTOTAL		3.02 HR		\$20.85	\$27.88	\$11.50	\$31.62	\$91.85
HARVEST OPERATIONS								
COMBINE (CUSTOM)			\$17.91					\$17.91
HAUL (CUSTOM)			\$7.00					\$7.00
SUBTOTAL			\$24.91					\$24.91
OVERHEAD EXPENSES								
DOWNTIME		0.22 HR		\$1.57				\$1.57
EMPLOYEE BENEFITS				\$3.75				\$3.75
INSURANCE			\$0.42				\$0.42	
LAND TAXES						\$1.75	\$1.75	
SUPERVISION AND MANAGEMENT				\$13.82				\$13.82
OTHER EXPENSES			\$48.04				\$48.04	
SUBTOTAL		0.22 HR	\$48.46	\$19.14			\$1.75	\$69.35
TOTAL OPERATING EXPENSES		3.24 HR	\$170.25	\$39.99	\$27.88	\$11.50	\$33.37	\$282.99
NET OPERATING PROFIT								(\$120.28)
INTEREST ON OPERATING CAPITAL	(	60.36 @	8.00%)					\$4.83
INTEREST ON EQUIPMENT INVESTMENT							\$10.00	
RETURN TO LAND AND RISK								(\$135.11)

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

BUDGET SUMMARY

GROSS RETURN		\$162.71	
VARIABLE OPERATING EXPENSES	\$209.63		
RETURN OVER VARIABLE EXPENSES		(\$46.92)	(GROSS MARGIN)
FIXED EXPENSES	\$33.37		
NET FARM INCOME		(\$80.29)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$39.99		
NET OPERATING PROFIT		(\$120.28)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$14.83		
RETURN TO LAND AND RISK		(\$135.11)	

TABLE 7. Oat hay, flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.
 Planting dates: February 1 - February 28
 Harvesting dates: June 1 - June 30

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
OAT HAY	\$80.00	3.50 TONS (STACKED)							\$280.00
TOTAL									\$280.00
PURCHASED INPUTS									
PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS					TOTAL
SEED	\$0.23	100 LBS		\$23.00					\$23.00
FERTILIZER (16-20-0)	\$0.170	150 LBS		\$25.50					\$25.50
PUMP WATER*		28 AC. IN.							
SUBTOTAL									\$48.50
PREHARVEST OPERATIONS									
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
PLOW	145 HP	0.48 HR			\$3.50	\$4.55	\$3.62	\$7.67	\$19.35
DISC	145 HP	0.34 HR			\$2.48	\$3.22	\$2.99	\$4.88	\$13.57
FLOAT	70 HP	0.16 HR			\$1.17	\$0.62	\$0.30	\$0.92	\$3.01
FERTILIZE (CUSTOM)				\$0.00					\$0.00
DRILL	70 HP	0.21 HR			\$1.53	\$0.81	\$1.02	\$4.18	\$7.55
IRRIGATE (4X)		2.00 HR			\$13.40	\$20.28	\$5.07	\$16.41	\$55.16
SUBTOTAL									\$98.64
HARVEST OPERATIONS									
SWATHER	16 FT	0.11 HR			\$0.80	\$0.43	\$0.88	\$2.96	\$5.08
BALER	126 HP	0.25 HR			\$1.83	\$2.37	\$2.35	\$3.89	\$10.44
BALE WAGON	S. P.	0.20 HR			\$1.46	\$1.55	\$4.07	\$1.84	\$8.93
SUBTOTAL									\$24.44
OVERHEAD EXPENSES									
DOWNTIME		0.40 HR			\$2.90				\$2.90
EMPLOYEE BENEFITS					\$4.71				\$4.71
INSURANCE				\$0.52					\$0.52
LAND TAXES								\$1.75	\$1.75
SUPERVISION AND MANAGEMENT					\$22.48				\$22.48
OTHER EXPENSES				\$48.04					\$48.04
SUBTOTAL									\$80.40
TOTAL OPERATING EXPENSES									\$251.98
NET OPERATING PROFIT									\$28.02
INTEREST ON OPERATING CAPITAL	(	35.84 @		8.00%)					\$2.87
INTEREST ON EQUIPMENT INVESTMENT									\$16.97
RETURN TO LAND AND RISK									\$8.19

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

BUDGET SUMMARY

GROSS RETURN		\$280.00	
VARIABLE OPERATING EXPENSES	\$151.21		
RETURN OVER VARIABLE EXPENSES		\$128.79	(GROSS MARGIN)
FIXED EXPENSES	\$44.51		
NET FARM INCOME		\$84.28	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$56.26		
NET OPERATING PROFIT		\$28.02	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$19.83		
RETURN TO LAND AND RISK		\$8.19	

TABLE 8. Upland cotton (picker), flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.

Planting dates: April 15 - May 15

Harvesting dates: October 15 - January 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
COTTON LINT	\$0.550	700 LBS						\$385.00
COTTON SEED	\$0.05	1,120 LBS						\$54.60
ASCS DEFICIENCY	\$0.0599	700 LBS						\$41.93
FARM LOAN DEFICIENCY	\$0.12	700 LBS						\$84.00
TOTAL								\$565.53
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	\$0.70	15 LBS	\$10.50					\$10.50
FOLIAR FERTILIZER	\$4.80	1 X/ACRE	\$4.80					\$4.80
INSECT SCOUTING	\$5.25	1 ACRE	\$5.25					\$5.25
HERBICIDE (CUSTOM)	\$79.01	1 X/ACRE	\$79.01					\$79.01
INSECTICIDE (CUSTOM)	\$31.56	3 X/ACRE	\$31.56					\$31.56
CROP INSURANCE		FCIC	\$0.53					\$0.53
PUMP WATER*		30 AC. IN.						
SUBTOTAL			\$131.65					\$131.65
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		\$1.24	\$1.61	\$1.50	\$2.44	\$6.79
PLOW	145 HP	0.48 HR		\$3.50	\$4.55	\$3.62	\$7.67	\$19.35
DISC (2X)	145 HP	0.34 HR		\$2.48	\$3.22	\$2.99	\$4.88	\$13.57
FLOAT	145 HP	0.16 HR		\$1.17	\$1.52	\$1.23	\$2.12	\$6.03
LISTER	145 HP	0.18 HR		\$1.31	\$1.71	\$1.55	\$3.27	\$7.84
PRE-IRRIGATE		0.75 HR		\$5.03	\$5.43	\$1.36	\$4.40	\$16.21
CULTIVATOR	65 HP	0.21 HR		\$1.53	\$1.02	\$0.45	\$0.33	\$3.33
PLANTER	70 HP	0.26 HR		\$1.90	\$1.01	\$2.18	\$4.64	\$9.73
SLED	70 HP	0.15 HR		\$1.10	\$0.58	\$0.30	\$0.99	\$2.97
CULTIVATOR (3X)	65 HP	0.63 HR		\$4.60	\$3.06	\$1.34	\$1.00	\$9.99
HAND HOE (CUSTOM)			\$20.00					\$20.00
IRRIGATE (3X)		1.50 HR		\$10.05	\$16.30	\$4.07	\$13.19	\$43.61
SUBTOTAL		4.83 HR	\$20.00	\$33.91	\$40.02	\$20.58	\$44.92	\$159.43
HARVEST OPERATIONS								
COTTON PICKER (2X)	2-ROW	0.74 HR		\$5.40	\$4.70	\$35.98	\$106.35	\$152.43
HAUL (2X)	65 HP	1.00 HR		\$7.30	\$4.86	\$1.27	\$8.58	\$22.01
GIN COTTON (CUSTOM)			\$76.23					\$76.23
SUBTOTAL		1.74 HR	\$76.23	\$12.70	\$9.56	\$37.24	\$114.94	\$250.68
POSTHARVEST OPERATIONS								
SHREDDER	70 HP	0.14 HR		\$1.02	\$0.54	\$0.44	\$2.36	\$4.37
SUBTOTAL		0.14 HR		\$1.02	\$0.54	\$0.44	\$2.36	\$4.37
OVERHEAD EXPENSES								
DOWNTIME		0.95 HR		\$6.92				\$6.92
EMPLOYEE BENEFITS				\$8.57				\$8.57
INSURANCE			\$0.95				\$0.95	
LAND TAXES						\$1.75	\$1.75	
SUPERVISION AND MANAGEMENT				\$43.73				\$43.73
OTHER EXPENSES			\$48.04				\$48.04	
SUBTOTAL		0.95 HR	\$48.99	\$59.22			\$1.75	\$109.97
TOTAL OPERATING EXPENSES		7.66 HR	\$276.87	\$106.86	\$50.12	\$58.26	\$163.97	\$656.09
NET OPERATING PROFIT								(\$90.56)
INTEREST ON OPERATING CAPITAL	(	85.12 @	8.00%					\$6.81
INTEREST ON EQUIPMENT INVESTMENT								\$98.96
RETURN TO LAND AND RISK								(\$196.33)

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

BUDGET SUMMARY

GROSS RETURN		\$565.53	
VARIABLE OPERATING EXPENSES	\$385.26		
RETURN OVER VARIABLE EXPENSES		\$180.27	(GROSS MARGIN)
FIXED EXPENSES	\$163.97		
NET FARM INCOME		\$16.30	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$106.86		
NET OPERATING PROFIT		(\$90.56)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$105.77		
RETURN TO LAND AND RISK		(\$196.33)	

TABLE 9. Upland cotton (stripper), flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.

Planting dates: April 15 - May 15

Harvesting dates: October 15 - January 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
COTTON LINT	\$0.500	700 LBS						\$350.00
COTTON SEED	\$0.05	1,120 LBS						\$54.60
ASCS DEFICIENCY	\$0.0599	700 LBS						\$41.93
FARM LOAN DEFICIENCY	\$0.12	700 LBS						\$84.00
TOTAL							\$530.53	
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
SEED	\$0.65	20 LBS	\$13.00					\$13.00
FOLIAR FERTILIZER	\$4.80	1 X/ACRE	\$4.80					\$4.80
INSECT SCOUTING	\$5.25	1 ACRE	\$5.25					\$5.25
HERBICIDE (CUSTOM)	\$44.28	1 X/ACRE	\$44.28					\$44.28
INSECTICIDE (CUSTOM)	\$33.18	3 X/ACRE	\$33.18					\$33.18
CROP INSURANCE		FCIC	\$0.74					\$0.74
PUMP WATER*		30 AC. IN.						
CROP INSURANCE	\$0.00		\$0.00					\$0.00
SUBTOTAL			\$101.24					\$101.24
PREHARVEST OPERATIONS								
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	145 HP	0.17 HR		\$1.24	\$1.61	\$1.50	\$2.44	\$6.79
PLOW	145 HP	0.48 HR		\$3.50	\$4.55	\$3.62	\$7.67	\$19.35
DISC (2X)	145 HP	0.34 HR		\$2.48	\$3.22	\$2.99	\$4.88	\$13.57
FLOAT	145 HP	0.16 HR		\$1.17	\$1.52	\$1.23	\$2.12	\$6.03
LIST	145 HP	0.18 HR		\$1.31	\$1.71	\$1.55	\$3.27	\$7.84
PRE-IRRIGATE		0.75 HR		\$5.03	\$5.43	\$1.36	\$4.40	\$16.21
CULTIVATOR	65 HP	0.21 HR		\$1.53	\$1.02	\$0.45	\$0.33	\$3.33
PLANTER	70 HP	0.26 HR		\$1.90	\$1.01	\$2.18	\$4.64	\$9.73
SLED	70 HP	0.15 HR		\$1.10	\$0.58	\$0.30	\$0.99	\$2.97
CULTIVATOR (3X)	65 HP	0.63 HR		\$4.60	\$3.06	\$1.34	\$1.00	\$9.99
HAND HOE (CUSTOM)			\$20.00					\$20.00
IRRIGATE (3X)		1.50 HR		\$10.05	\$16.30	\$4.07	\$13.19	\$43.61
SUBTOTAL		4.83 HR	\$20.00	\$33.91	\$40.02	\$20.58	\$44.92	\$159.43
HARVEST OPERATIONS								
COTTON STRIPPER	70 HP	0.62 HR		\$4.53	\$2.41	\$3.07	\$14.71	\$24.71
HAUL	65 HP	0.75 HR		\$5.48	\$3.65	\$0.95	\$6.44	\$16.51
GIN COTTON (CUSTOM)			\$100.31					\$100.31
SUBTOTAL		1.37 HR	\$100.31	\$10.00	\$6.05	\$4.02	\$21.14	\$141.53
POSTHARVEST OPERATIONS								
SHREDDER	70 HP	0.14 HR		\$0.56	\$0.54	\$0.44	\$2.36	\$3.90
SUBTOTAL		0.14 HR		\$0.56	\$0.54	\$0.44	\$2.36	\$3.90
OVERHEAD EXPENSES								
DOWNTIME		0.89 HR		\$6.52				\$6.52
EMPLOYEE BENEFITS				\$8.00				\$8.00
INSURANCE			\$0.89				\$0.89	
LAND TAXES						\$1.75	\$1.75	
SUPERVISION AND MANAGEMENT				\$40.35				\$40.35
OTHER EXPENSES			\$48.04				\$48.04	
SUBTOTAL		0.89 HR	\$48.93	\$54.87			\$1.75	\$105.55
TOTAL OPERATING EXPENSES		7.23 HR	\$270.47	\$99.34	\$46.61	\$25.04	\$70.18	\$511.64
NET OPERATING PROFIT								\$18.89
INTEREST ON OPERATING CAPITAL	(	66.85	@	8.00%				\$5.35
INTEREST ON EQUIPMENT INVESTMENT								\$29.62
RETURN TO LAND AND RISK								(\$16.08)

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

BUDGET SUMMARY

GROSS RETURN		\$530.53	
VARIABLE OPERATING EXPENSES	\$342.13		
RETURN OVER VARIABLE EXPENSES		\$188.40	(GROSS MARGIN)
FIXED EXPENSES	\$70.18		
NET FARM INCOME		\$118.22	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$99.34		
NET OPERATING PROFIT		\$18.89	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$34.97		
RETURN TO LAND AND RISK		(\$16.08)	

TABLE 10. Red chile, flood-irrigated, budgeted per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.
 Planting dates: April 1 - April 15
 Harvesting dates: September 1 - October 30

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
RED CHILE	\$0.69	3200 LBS						\$2,208.00	
TOTAL							\$2,208.00		
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS		TOTAL			
SEED	\$24.00		8 LBS	\$192.00			\$192.00		
NITROGEN (N)	\$0.32		120 LBS	\$38.40			\$38.40		
PHOSPHATE (P205)	\$0.30		70 LBS	\$21.00			\$21.00		
HERBICIDE (CUSTOM)	\$33.78		1 X/ACRE	\$33.78			\$33.78		
INSECTICIDE (CUSTOM)	\$39.93		3 X/ACRE	\$39.93			\$39.93		
CROP INSURANCE			400 DOLLARS	\$20.00			\$20.00		
PUMP WATER*			48 AC. IN.						
SUBTOTAL				\$345.10			\$345.10		
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
PLOW	145 HP	0.48 HR		\$3.50	\$4.55	\$3.62	\$7.67	\$19.35	
DISC (2X)	145 HP	0.34 HR		\$2.48	\$3.22	\$2.99	\$4.88	\$13.57	
PLANE	145 HP	0.16 HR		\$1.17	\$1.52	\$1.31	\$3.64	\$7.64	
FERTILIZE	PLER APPLIED								
LIST	145 HP	0.18 HR		\$1.31	\$1.71	\$1.55	\$3.27	\$7.84	
PRE-IRRIGATE		0.75 HR		\$5.03	\$4.35	\$1.09	\$3.52	\$13.97	
CULTIVATOR	65 HP	0.21 HR		\$1.53	\$1.02	\$0.45	\$0.33	\$3.33	
PLANTER	70 HP	0.26 HR		\$1.90	\$1.01	\$2.18	\$4.64	\$9.73	
CULTIVATOR (5X)	65 HP	1.05 HR		\$7.67	\$5.11	\$2.23	\$1.66	\$16.66	
THIN (CUSTOM)			\$45.00					\$45.00	
IRRIGATE (7X)		3.50 HR		\$23.45	\$30.42	\$7.60	\$24.61	\$86.09	
HAND HOE (CUSTOM)			\$20.00					\$20.00	
SUBTOTAL			6.93 HR	65.00	\$48.04	\$52.91	\$23.02	\$54.22	\$243.18
HARVEST OPERATIONS									
HAND PICK (CUSTOM)			\$640.00					\$640.00	
FIELD HAUL	145 HP	0.90 HR		\$6.57	\$8.53	\$7.06	\$15.00	\$37.17	
HAUL (CUSTOM)			\$96.00					\$96.00	
SUBTOTAL			0.90 HR	736.00	\$6.57	\$8.53	\$7.06	\$15.00	\$773.17
POSTHARVEST OPERATIONS									
SHREDDER	70 HP	0.14 HR		\$1.02	\$0.54	\$0.44	\$2.36	\$4.37	
SUBTOTAL			0.14 HR		\$1.02	\$0.54	\$0.44	\$2.36	\$4.37
OVERHEAD EXPENSES									
DOWNTIME		0.93 HR		\$6.79				\$6.79	
EMPLOYEE BENEFITS				\$10.01				\$10.01	
INSURANCE			\$1.11					\$1.11	
LAND TAXES							\$1.75	\$1.75	
SUPERVISION AND MANAGEMENT				\$160.67				\$160.67	
OTHER EXPENSES			\$48.04					\$48.04	
SUBTOTAL			0.93 HR	\$49.15	\$177.47		\$1.75	\$228.38	
TOTAL OPERATING EXPENSES			8.90 HR	\$1,195.25	\$233.10	\$61.98	\$30.52	\$73.33	\$1,594.19
NET OPERATING PROFIT								\$613.81	
INTEREST ON OPERATING CAPITAL	(	193.08	@	8.00%				\$15.45
INTEREST ON EQUIPMENT INVESTMENT								\$24.89	
RETURN TO LAND AND RISK								\$573.47	

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

GROSS RETURN		\$2,208.00
VARIABLE OPERATING EXPENSES	\$1,287.76	
RETURN OVER VARIABLE EXPENSES		\$920.24 (GROSS MARGIN)
FIXED EXPENSES	\$73.33	
NET FARM INCOME		\$846.91 (RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$233.10	
NET OPERATING PROFIT		\$613.81 (RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$40.34	
RETURN TO LAND AND RISK		\$573.47

TABLE 11. Summary of per acre costs and returns for a 500 acre farm with above average management, Artesia-Lake Arthur area, 2002.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	BARLEY	OAT HAY	PICKER COTTON	STRIPPER COTTON	RED CHILE
	-----FLOOD-----						
		TONS	CWT	TONS	LBS	LBS	LBS
PRIMARY YIELD		6.50	35.00	3.50	700.00	700.00	3200.00
PRIMARY PRICE		120.00	3.30	80.00	0.55	0.50	0.69
GOVERNMENT PAYMENTS		0.00	7.21	0.00	125.93	125.93	0.00
SECOND INCOME		40.00	40.00	0.00	54.60	54.60	0.00
GROSS RETURN		\$820.00	\$162.71	\$280.00	\$565.53	\$530.53	\$2,208.00
CASH OPERATING EXPENSES							
SEED	\$58.00		\$26.40	\$23.00	\$10.50	\$13.00	\$192.00
FERTILIZER		\$42.00	\$48.00	\$25.50	\$4.80	\$4.80	\$59.40
CHEMICALS	\$31.64	\$84.39	\$19.54		\$115.83	\$82.70	\$73.70
CROP INSURANCE			\$2.94		\$0.53	\$0.74	\$20.00
OTHER PURCHASED INPUTS		\$77.09					
CANAL WATER							
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$18.08	\$19.99	\$7.60	\$13.57	\$28.39	\$24.88	\$27.21
FUEL-IRRIGATION	\$5.80	\$36.22	\$20.28	\$20.28	\$21.73	\$21.73	\$34.77
REPAIRS	\$16.61	\$42.74	\$11.50	\$20.30	\$58.26	\$25.04	\$30.52
CUSTOM CHARGES			\$24.91		\$96.23	\$120.31	\$801.00
LAND TAXES		\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75
OTHER EXPENSES	\$0.47	\$48.95	\$48.46	\$48.56	\$48.99	\$48.93	\$49.15
TOTAL CASH EXPENSES	\$130.59	\$353.14	\$211.38	\$152.96	\$387.01	\$343.88	\$1,289.51
RETURN OVER CASH EXPENSES	(\$130.59)	\$466.86	(\$48.67)	\$127.04	\$178.52	\$186.65	\$918.49
FIXED EXPENSES	\$41.16	\$118.25	\$31.62	\$42.75	\$162.22	\$68.42	\$71.58
TOTAL EXPENSES	\$171.75	\$471.39	\$243.00	\$195.72	\$549.23	\$412.31	\$1,361
NET FARM INCOME	(\$171.75)	\$348.61	(\$80.29)	\$84.28	\$16.30	\$118.22	\$846.91
LABOR AND MANAGEMENT COSTS	\$46.58	\$121.48	\$39.99	\$56.26	\$106.86	\$99.34	\$233.10
NET OPERATING PROFIT	(\$218.33)	\$227.13	(\$120.28)	\$28.02	(\$90.56)	\$18.89	\$613.81
CAPITAL COSTS							
INTEREST ON OPERATING CAPITAL		\$9.40	\$4.83	\$2.87	\$6.81	\$5.35	\$15.45
INTEREST ON EQUIPMENT INVESTMENT		\$29.56	\$10.00	\$16.97	\$98.96	\$29.62	\$24.89
TOTAL CAPITAL COSTS	\$0.00	\$38.96	\$14.83	\$19.83	\$105.77	\$34.97	\$40.34
RETURN TO LAND AND RISK	(\$218.33)	\$188.17	(\$135.11)	\$8.19	(\$196.33)	(\$16.08)	\$573.47

TABLE 12. Whole farm summary, Artesia-Lake Arthur area, 2002.

GROSS RETURNS		
ALFALFA HAY	260 ACRES	
CROP		\$213,200
BARLEY	17 ACRES	
CROP		\$2,644
ASCS DEFICIENCY		\$123
ASCS DIVERSION		\$0
OAT HAY	20 ACRES	
CROP		\$5,600
PICKER COTTON	95 ACRES	
COTTON LINT		\$36,575
COTTON SEED		\$5,187
ASCS DEFICIENCY		\$2,851
ASCS DIVERSION		\$7,980
STRIPPER COTTON	68 ACRES	
COTTON LINT		\$23,800
COTTON SEED		\$3,713
ASCS DEFICIENCY		\$2,851
ASCS DIVERSION		\$5,712
RED CHILE	40 ACRES	
CROP		\$88,320
GROSS RETURN		<u>\$398,555</u>
CASH OPERATING EXPENSES		
SEED		\$13,486
FERTILIZER		\$15,404
CHEMICALS		\$43,493
CROP INSURANCE		\$950
OTHER PURCHASED INPUTS		\$20,044
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$12,015
FUEL-IRRIGATION		\$15,402
REPAIRS		\$21,037
CUSTOM CHARGES		\$49,786
LAND TAXES		\$877
OTHER EXPENSES		\$24,495
TOTAL CASH EXPENSES		<u>\$216,990</u>
RETURN OVER CASH EXPENSES		\$181,565
FIXED EXPENSES		\$45,851
TOTAL EXPENSES		\$262,841
NET FARM INCOME		\$135,714
LABOR AND MANAGEMENT COSTS		\$62,042
NET OPERATING PROFIT		\$73,672
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$4,213
INTEREST ON EQUIPMENT INVESTMENT		\$20,606
TOTAL CAPITAL COSTS		<u>\$24,818</u>
RETURN TO LAND AND RISK		<u>\$48,853</u>
LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$1,000 /ACRE	\$28,853	8.96%
\$2,500 /ACRE	(\$1,147)	4.69%
\$4,000 /ACRE	(\$31,147)	3.17%
\$5,500 /ACRE	(\$61,147)	2.40%

* 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)