

TABLE 1. Basic cost information for the Estancia Basin, 2002.

Item		
Labor Wage Rate:		
Equipment operators	\$/hour	\$6.75
General & Irrigators	\$/hour	\$6.45
Purchased Inputs:		
Fertilizer:		
Anhydrous Ammonia (NH3)	\$/ton	\$300.00
Nitrogen (N)	\$/pound	\$0.32
Phosphate (P205)	\$/pound	\$0.30
Seed:		
Alfalfa	\$/pound	\$2.90
Corn	\$/bag	\$89.75
Pinto Beans	\$/pound	\$0.40
Natural gas		
(service charge)	\$/MCF	\$3.28
	\$/month	\$10.00
Diesel fuel	\$/gallon	\$1.05
Gasoline	\$/gallon	\$1.00
Electricity	cents/KwHr	3.34
LP Gas	\$/Gal	\$0.86
Employee Liability Insurance	\$/\$1,000 wages	\$12.00
Employee Benefits	percent/wages	12.00%
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	\$100.00 /acre (full value)	\$0.88
Personal Property Tax Rate - NR	\$/ \$1,000 (Assessed Value)	\$26.40
- R		\$25.49
Supervision Factors		
Field Crop-Irrigation	\$/labor hour	\$1.00
Field Crop-Equipment & General	\$/labor hour	\$0.50
Management Rate	percent	4.00%

BUDGET AREA..... ESTANCIA BASIN, TORRANCE AND SANTA FE COUNTIES, 2002.
 FARM SIZE..... 160
 IRRIGATION TYPE..... FLOOD
 NUMBER OF CROPS... 3

ACREAGE SUMMARY:	LAND USE (ACRES)	WATER USE	
		AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	8.0 *	6	48
ALFALFA	40.0	42	1,680
CORN FOR GRAIN	51.0	36	1,836
ARP	0.0		
FLEX IN PINTO BEANS	9.0	36	324
PINTO BEANS	50.0	18	900
IDLE, ROADS, HOMESTEAD	10.0		
TOTAL	160.0		4,788
ACRE FEET PER ACRE OF WATER RIGHTS			2.49

* DOUBLE-CROPPED

TABLE 1a. Overhead cost information for the Estancia Basin, 2002.

ITEM			
Electricity (Domestic & Shop)		\$115.00 per month	\$1,380
Telephone		\$80.00 per month	\$960
Accounting & Legal			\$475
Misc. Supplies & Hand Tools			\$785
Pickup and Auto			
miles	10,300	@ \$0.345 per mile	\$3,554
Insurance			
- general liability (non-employee)			\$1,020
- fire/theft			\$675
Property Taxes			
- non-planted land			\$29
- other than land & machinery			\$300
Building repairs and maintenance			\$510
Dues, fees, publications			\$260
Farmstead Equipment			\$160
		Total	\$10,106
		Total Per Planted Acre	\$67.37

TABLE 2. Pumping costs and data for irrigation wells, Estancia Basin, 2002.

INPUT DATA

		DEPTH CHARACTERISTICS:	
		STATIC.....	175
		DRAW DOWN.....	25
		TOTAL HEAD.....	200
		CASING.....	250
GALLONS PER MINUTE (GPM).....	500		
WORK HORSEPOWER.....	25		
EFFICIENCY FACTOR:			
ELECTRICITY.....	0.540		
NATURAL GAS.....	0.154		
LP GAS.....	0.154		
DIESEL.....	0.160		
FUEL COST PER HOUR:			
ELECTRICITY.....	\$3.34	CENTS/KwHr	
NATURAL GAS.....	\$3.28	\$/MCF	
LP GAS.....	\$0.86	\$/GAL	
DIESEL.....	\$1.05	\$/GAL	

PUMPING COSTS

ELECTRIC WELL:	
COST PER HOUR.....	\$1.20
COST PER ACRE INCH.....	\$1.08
NATURAL GAS WELL:	
COST PER HOUR.....	\$1.53
COST PER ACRE INCH.....	\$1.39
LP GAS WELL:	
COST PER HOUR.....	\$3.94
COST PER ACRE INCH.....	\$3.56
DIESEL WELL:	
COST PER HOUR.....	\$3.00
COST PER ACRE INCH.....	\$2.72

TABLE 3. Equipment summary for a 160 acre flood-irrigated, part-time farm, Estancia Basin, 2002.

EQUIPMENT ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	VARIABLE COSTS					FIXED COSTS		
			TOTAL VALUE	FUEL, OIL LUBRICANT	REPAIR	FUEL, OIL PER HR	REPAIR PER HR	DEPRE- CIATION	TAXES	TOTAL PER HOUR
----- (DOLLARS) -----										
TRACTOR 65 HP	110	1	\$2,400	\$532	\$58	\$4.86	0.53	\$138	\$24	\$1.48
TRACTOR 96 HP	141	1	\$23,030	\$1,052	\$454	\$7.46	3.22	\$1,430	\$189	\$11.49
TRUCK 1 TON	26	1	\$11,000	\$231	\$146	\$9.08	5.72	\$1,467	\$97	\$61.31
COMBINE	36	1	\$1,200	\$294	\$15	\$8.14	0.41	\$338	\$59	\$10.98
CORN HEAD	18	1	\$1,300		\$4		0.21	\$283	\$19	\$16.92
BEAN HEAD	18	1	\$1,200		\$17		0.92	\$267	\$18	\$15.54
BEAN KNIVES	30	1	\$800		\$17		0.58	\$107	\$7	\$3.85
SWATHER 14 FT, PTO	19	1	\$5,100		\$17		0.87	\$1,450	\$128	\$82.17
BALER PTO 2-WIRE	25	1	\$1,500		\$12		0.46	\$385	\$34	\$16.62
RAKE	14	1	\$750		\$6		0.39	\$75	\$7	\$5.76
PLANTER 4-ROW	29	1	\$3,400		\$138		4.83	\$680	\$30	\$24.82
CHISEL 12 FT	12	1	\$1,200		\$12		1.03	\$160	\$11	\$14.45
CULTIVATOR 4-ROW	59	1	\$2,500		\$94		1.60	\$333	\$22	\$6.06
DISC 18 FT	34	1	\$5,400		\$132		3.89	\$720	\$48	\$22.57
FLOAT	2	1	\$500		\$0		0.02	\$53	\$4	\$37.40
DRILL 12 FT	2	1	\$2,200		\$2		1.06	\$440	\$19	\$273.43
LISTER 4-ROW	21	1	\$2,150		\$36		1.68	\$287	\$19	\$14.39
FERT SPREADER DEALER FURNIS	5	1								
WELL NATURAL GAS	4187	2	\$22,000	\$6,409	\$837	\$1.53	0.20	\$2,316	\$194	\$0.66
			\$87,630	\$8,518	\$1,994			\$10,928	\$926	

TABLE 4. Alfalfa establishment, flood-irrigated, budgeted per acre costs and returns for a 160 acre part-time farm, Estancia Basin, 2002.
Planting dates: August 1 - September 15

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
SEED	\$2.90	20 LBS						\$58.00
PUMP WATER*		6 AC. IN.						\$58.00
SUBTOTAL								\$58.00
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
DISC (2X)	96 HP	0.34 HR		\$2.30	\$2.54	\$2.42	\$11.58	\$18.83
CHISEL	96 HP	0.20 HR		\$1.35	\$1.49	\$0.85	\$5.19	\$8.88
FLOAT	65 HP	0.19 HR		\$1.28	\$0.92	\$0.10	\$7.39	\$9.70
LISTER	96 HP	0.18 HR		\$1.22	\$1.34	\$0.88	\$4.66	\$8.10
FERT SPREADER	65 HP	0.05 HR		\$0.34	\$0.24	\$0.03	\$0.07	\$0.68
DRILL	65 HP	0.21 HR		\$1.42	\$1.02	\$0.33	\$57.73	\$60.50
IRRIGATE		0.75 HR		\$4.84	\$8.31	\$1.09	\$3.57	\$17.80
SUBTOTAL		1.92 HR		\$12.74	\$15.87	\$5.70	\$90.18	\$124.49
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.48 HR		\$3.24				\$3.24
EMPLOYEE BENEFITS				\$1.53				\$1.53
INSURANCE			\$0.15					\$0.15
SUPERVISION AND MANAGEMENT				\$8.63				\$8.63
SUBTOTAL		0.48 HR	0.15	13.40				13.56
TOTAL OPERATING EXPENSES		2.40 HR	\$58.15	\$26.14	\$15.87	\$5.70	\$90.18	\$196.04

TABLE 5. Alfalfa hay, flood-irrigated, budgeted per acre costs and returns for a 160 acre part-time farm, Estancia Basin, 2002.
Harvesting dates: June 15 - October 15

ITEM	PRICE	YIELD							TOTAL
GROSS RETURNS									
ALFALFA HAY	\$110.00	4.00	TONS (IN FIELD)						\$440.00
GRAZING	\$10.00	1.00	ACRE						\$10.00
TOTAL									\$450.00
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS			FIXED COST	TOTAL	
NITROGEN (N)	0.32	22	LBS	\$7.04				\$7.04	
PHOSHPATE (P205)	\$0.30	123	LBS	\$36.90				\$36.90	
INSECTICIDE (CUSTOM)	\$22.60	1	ACRE	\$22.60				\$22.60	
LIVESTOCK FAC & EQUIP						\$5.00		\$5.00	
WIRE	\$0.37	34	LBS	\$12.74				\$12.74	
ESTABLISHMENT: Principal		5	YEARS			\$39.21		\$39.21	
: Interest						\$5.34		\$5.34	
PUMP WATER*		42	AC. IN.						
SUBTOTAL				\$79.28				\$49.55	\$128.82
PREHARVEST OPERATIONS		POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
FERT SPREADER	65 HP	0.05	HR		\$0.34	\$0.24	\$0.03	\$0.07	\$0.68
IRRIGATE (7X)		3.50	HR		\$22.58	\$58.19	\$7.60	\$24.96	\$113.33
SUBTOTAL					\$22.91	\$58.43	\$7.63	\$25.04	\$114.01
HARVEST OPERATIONS									
SWATHER (3X)	96 HP	0.48	HR		\$3.24	\$3.58	\$1.96	\$44.95	\$53.74
BALER (3X)	96 HP	0.63	HR		\$4.25	\$4.70	\$2.32	\$17.71	\$28.98
SUBTOTAL					\$7.49	\$8.28	\$4.28	\$62.66	\$82.72
OVERHEAD EXPENSES									
DOWNTIME		0.29	HR		\$1.96				\$1.96
EMPLOYEE BENEFITS					\$3.65				\$3.65
INSURANCE				\$0.36					\$0.36
LAND TAXES							\$0.88		\$0.88
SUPERVISION AND MANAGEMENT					\$22.08				\$22.08
OTHER EXPENSES				\$67.37					\$67.37
SUBTOTAL					\$67.74	\$27.69		\$0.88	\$96.30
TOTAL OPERATING EXPENSES			4.95	HR	\$147.01	\$58.09	\$66.71	\$11.91	\$138.13
NET OPERATING PROFIT									\$28.14
INTEREST ON OPERATING CAPITAL	(\$59.87	@	8.00%					\$4.79
INTEREST ON EQUIPMENT INVESTMENT									\$58.31
RETURN TO LAND AND RISK									(\$34.95)

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

BUDGET SUMMARY

GROSS RETURN		\$450.00	
VARIABLE OPERATING EXPENSES	\$225.64		
RETURN OVER VARIABLE EXPENSES		\$224.36	(GROSS MARGIN)
FIXED EXPENSES	\$138.13		
NET FARM INCOME		\$86.23	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$58.09		
NET OPERATING PROFIT		\$28.14	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$63.10		
RETURN TO LAND AND RISK		(\$34.95)	

TABLE 6. Corn for grain, flood-irrigated, budgeted per acre costs and returns for a 160 acre part-time farm, Estancia Basin, 2002.

Planting dates: May 1 - May 20

Harvesting dates: November 1 - November 30

ITEM	PRICE	YIELD							TOTAL
GROSS RETURN									
CORN FOR GRAIN	\$2.15	120.00	BUSHEL						\$258.00
ASCS DEFICIENCY	\$0.269	120.00	BUSHEL						\$32.28
ASCS DIVERSION	\$0.00	0.00	BUSHEL						\$0.00
GRAZING	\$12.00	1.00	ACRE						\$12.00
TOTAL									\$302.28
PURCHASED INPUTS		PRICE	QUANTITY	PURCHASED INPUTS			TOTAL		
SEED	\$1.12	25	000	\$28.05				\$28.05	
ANHYDROUS AMMONIA (NH3)	\$0.1500	200	LBS	\$30.00				\$30.00	
NITROGEN (N)	\$0.32	20	LBS	\$6.40				\$6.40	
PHOSPHATE (P205)	\$0.30	44	LBS	\$13.20				\$13.20	
INSECTICIDE	\$16.59	1	ACRE	\$16.59				\$16.59	
HERBICIDE	\$16.59	1	ACRE	\$16.59				\$16.59	
LIVESTOCK FAC & EQUIP						\$5.00		\$5.00	
PUMP WATER*		36	AC. IN.						
CROP INSURANCE	\$0.98							\$0.98	
SUBTOTAL				\$110.82		\$5.00		\$116.80	
PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & OIL	REPAIRS	FIXED COST	TOTAL
DISC (2X)	96 HP	0.22	HR		\$1.49	\$1.64	\$1.56	\$7.49	\$12.18
CHISEL	96 HP	0.20	HR		\$1.35	\$1.49	\$0.85	\$5.19	\$8.88
FERT SPREADER	65 HP	0.05	HR		\$0.34	\$0.24	\$0.03	\$0.07	\$0.68
LISTER	96 HP	0.18	HR		\$1.22	\$1.34	\$0.88	\$4.66	\$8.10
IRRIGATE		0.75	HR		\$4.84	\$8.31	\$1.09	\$3.57	\$17.80
PLANTER	65 HP	0.26	HR		\$1.76	\$1.26	\$1.39	\$6.84	\$11.25
CULTIVATOR (2X)	65 HP	0.42	HR		\$2.84	\$2.04	\$0.89	\$3.17	\$8.94
IRRIGATE (5X)		2.50	HR		\$16.13	\$41.56	\$5.43	\$17.83	\$80.95
SUBTOTAL		4.58	HR		\$29.94	\$57.90	\$12.12	\$48.81	\$148.78
HARVEST OPERATIONS									
COMBINE	4-ROW	0.35	HR		\$2.36	\$2.85	\$0.22	\$9.77	\$15.19
HAUL	1-TON	0.50	HR		\$3.38	\$4.54	\$2.86	\$30.66	\$41.43
SUBTOTAL		0.85	HR		\$5.74	\$7.39	\$3.08	\$40.42	\$56.62
OVERHEAD EXPENSES									
DOWNTIME		0.55	HR		\$3.68				\$3.68
EMPLOYEE BENEFITS					\$4.28				\$4.28
INSURANCE				\$0.43					\$0.43
LAND TAXES							\$0.88		\$0.88
SUPERVISION AND MANAGEMENT					\$18.56				\$18.56
OTHER EXPENSES				\$67.37					\$67.37
SUBTOTAL		0.55	HR		\$67.80	\$26.52	\$0.88		\$95.20
TOTAL OPERATING EXPENSES		5.98	HR		\$178.62	\$62.20	\$65.29	\$95.12	\$417.41
NET OPERATING PROFIT									(\$115.13)
INTEREST ON OPERATING CAPITAL	(\$74.28	@	8.00%)				\$5.94
INTEREST ON EQUIPMENT INVESTMENT									\$51.23
RETURN TO LAND AND RISK									(\$172.30)

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

BUDGET SUMMARY

GROSS RETURN		\$302.28	
VARIABLE OPERATING EXPENSES	\$259.11		
RETURN OVER VARIABLE EXPENSES		\$43.17	(GROSS MARGIN)
FIXED EXPENSES	\$95.12		
NET FARM INCOME		(\$51.95)	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$62.20		
NET OPERATING PROFIT		(\$114.15)	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$57.17		
RETURN TO LAND AND RISK		(\$171.32)	

TABLE 8. Summary of per acre costs and returns for a 160 acre part-time, flood-irrigated farm, Estancia Basin, New Mexico, 2002.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	CORN FOR GRAIN	PINTO BEANS
		TONS	BU	CWT
PRIMARY YIELD		4.00	120.00	18.00
PRIMARY PRICE		110.00	2.15	33.00
GOVERNMENT PAYMENTS		0.00	32.28	0.00
SECOND INCOME		10.00	12.00	0.00
GROSS RETURN		\$450.00	\$302.28	\$594.00
CASH OPERATING EXPENSES				
SEED	\$58.00		\$28.05	\$25.80
FERTILIZER		\$43.94	\$49.60	
CHEMICALS		\$22.60	\$33.18	\$28.16
CROP INSURANCE			\$0.98	
OTHER PURCHASED INPUTS		\$12.74		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$7.56	\$8.53	\$15.41	\$15.63
FUEL-IRRIGATION	\$8.31	\$58.19	\$49.87	\$24.94
REPAIRS	\$5.70	\$11.91	\$15.20	\$11.82
CUSTOM CHARGES				\$54.00
LAND TAXES		\$0.88	\$0.88	\$0.88
OTHER EXPENSES	\$0.15	\$67.74	\$67.80	\$67.71
TOTAL CASH EXPENSES	\$79.72	\$226.52	\$260.97	\$228.93
RETURN OVER CASH EXPENSES	(\$79.72)	\$223.48	\$41.31	\$365.07
FIXED EXPENSES	\$90.18	\$137.25	\$94.24	\$56.16
TOTAL EXPENSES	\$169.91	\$363.77	\$355.21	\$285.09
NET FARM INCOME	(\$169.91)	\$86.23	(\$52.93)	\$308.91
LABOR AND MANAGEMENT COSTS	\$26.14	\$58.09	\$62.20	\$62.07
NET OPERATING PROFIT	(\$196.04)	\$28.14	(\$115.13)	\$246.84
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$4.79	\$5.94	\$3.43
INTEREST ON EQUIPMENT INVESTMENT		\$58.31	\$51.23	\$37.96
TOTAL CAPITAL COSTS	\$0.00	\$63.10	\$57.17	\$41.40
RETURN TO LAND AND RISK	(\$196.04)	(\$34.95)	(\$172.30)	\$205.45

TABLE 9. Whole farm summary, Estancia Basin, 2002.

GROSS RETURNS		
ALFALFA HAY	40 ACRES	
CROP		\$17,600
GRAZING		\$400
CORN FOR GRAIN	51 ACRES	
CROP		\$13,158
GRAZING		\$612
ASCS DEFICIENCY		\$1,356
PINTO BEANS	59 ACRES	
CROP		\$35,046
GROSS RETURN		\$68,172
CASH OPERATING EXPENSES		
SEED		\$3,417
FERTILIZER		\$4,287
CHEMICALS		\$4,258
CROP INSURANCE		\$50
OTHER PURCHASED INPUTS		\$509
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$2,110
FUEL-IRRIGATION		\$6,409
REPAIRS		\$1,994
CUSTOM CHARGES		\$3,186
LAND TAXES		\$132
OTHER EXPENSES		\$10,163
TOTAL CASH EXPENSES		\$36,515
RETURN OVER CASH EXPENSES		\$31,657
FIXED EXPENSES		\$12,762
TOTAL EXPENSES		\$49,277
NET FARM INCOME		\$18,894
LABOR AND MANAGEMENT COSTS		\$9,367
NET OPERATING PROFIT		\$9,527
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$697
INTEREST ON EQUIPMENT INVESTMENT		\$7,185
TOTAL CAPITAL COSTS		\$7,882
RETURN TO LAND AND RISK		\$1,646

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
\$750 /ACRE	(\$3,154)	4.59%
\$1,000 /ACRE	(\$4,754)	3.85%
\$1,250 /ACRE	(\$6,354)	3.31%
\$1,500 /ACRE	(\$7,954)	2.91%

* 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)