

TABLE 1. Acreage Summary, Otero County,
Projected 2004.

BUDGET AREA..... TULAROSA BASIN, OTERO COUNTY			
FARM SIZE.....	50 ACRES		
IRRIGATION TYPE.....	SPRINKLER		
NUMBER OF CROPS....	3		
	WATER USE		
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	4.00 *	8	32
ALFALFA HAY	40.00	45	1,800
OAT HAY	5.00	18	90
SORGHUM/SUDAN	5.00 *	16	80
ROADS, DITCHES, HOMESTEAD	5.00		
TOTAL	50.00		2,002
ACRE FEET PER ACRE OF WATER RIGHTS			3.34

* DOUBLE-CROPPED

TABLE 2. Basic cost information for Tularosa Basin, Otero County,
Projected 2004.

Item			
Labor Wage Rate:			
Equipment operators		\$/hour	\$6.75
General & Irrigators		\$/hour	\$6.45
Purchased Inputs:			
Fertilizer:			
Nitrogen (N)		\$/pound	\$0.29
Seed:			
Alfalfa		\$/pound	\$2.80
Oats for Hay		\$/pound	\$0.30
Natural Gas (Gas NM) (service charge)		\$/MCF \$/month	\$7.23 \$10.00
Diesel fuel		\$/gallon	\$1.50
Gasoline		\$/gallon	\$1.45
Electricity (Otero Coop)		cents/KwHr	7.15
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	6.50%
Land Interest Rate		percent	6.00%
Equipment Interest Rate		percent	6.50%
Expected Inflation Rate		percent	4.00%
Land Taxes		\$300.00 /acre (full value)	\$2.99
Personal Property Tax Rate	- NR	\$/ \$1,000 (Assessed Value)	\$29.85
	- R		\$23.77
Supervision Factors			
Field Crop-Irrigation		\$/acre	\$1.00
Field Crop-Equipment & General		\$/acre	\$0.50
Management Rate		percent	4.00%

TABLE 3. Overhead cost information for Tularosa Basin, Otero County,
Projected 2004.

Item			
Electricity (Domestic & Shop)		\$75.00 per month	\$900
Telephone		\$80.00 per month	\$960
Accounting & Legal			\$170
Misc. Supplies & Hand Tools			\$565
Pickup and Auto			
miles	5,150	@ \$0.365 per mile	\$1,880
Insurance			
- general liability (non-employee)			\$270
- fire/theft			\$180
Property Taxes			
- non-planted land			\$185
- other than land & machinery			\$140
Building repairs and maintenance			\$270
Dues, fees, publications			\$150
Farmstead Equipment			\$180
Total			\$5,850
Total per planted acre			\$129.99

TABLE 4. Pumping costs and data for irrigation wells, Tularosa Basin, Otero County, Projected 2004.

INPUT DATA			
DELIVERY PSI:		DEPTH CHARACTERISTICS:	
SPRINKLER	40	STATIC.....	145
		DRAW DOWN.....	35
		TOTAL HEAD.....	180
		CASING.....	275
GALLONS PER MINUTE (GPM)	300		
WORK HORSEPOWER	21		
EFFICIENCY FACTOR:			
ELECTRICITY	0.290		
NATURAL GAS	0.151		
LP GAS	0.151		
DIESEL	0.180		
FUEL COST PER HOUR:			
ELECTRICITY	7.15	CENTS/KwHr	
NATURAL GAS	\$7.23	\$/MCF	
LP GAS	\$0.62	\$/GAL	
DIESEL	\$1.50	\$/GAL	

PUMPING COSTS

ELECTRICAL WELL:		
COST PER HOUR		\$3.83
COST PER ACRE INCH		\$5.77
NATURAL GAS WELL:		
COST PER HOUR		\$2.79
COST PER ACRE INCH		\$4.20
BUTANE WELL:		
COST PER HOUR		\$2.38
COST PER ACRE INCH		\$3.59
DIESEL WELL:		
COST PER HOUR		\$3.11
COST PER ACRE INCH		\$4.70

TABLE 5. Equipment summary for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2004.

EQUIPMENT					VARIABLE COSTS				FIXED COSTS		
ITEM & SIZE	ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	FUEL, OIL, LUBRICANT	REPAIR	FUEL, OIL PER HR	REPAIR PER HR	DEPRECIATION	TAXES	TOTAL PER HR	
TRACTOR	50 HP	122	1	\$6,700	\$661	\$403	\$5.42	\$3.30	\$1,100	\$109	\$9.92
BALEWAGON, PTO		43	1	\$1,500		\$124		\$2.88	\$800	\$80	\$20.46
BALER, PTO	2 WIRE	45	1	\$1,600		\$38		\$0.85	\$385	\$38	\$9.38
PLOW	2 BTM	4	1	\$250		\$1		\$0.31	\$33	\$2	\$8.53
FLOAT	8 FT	9	1	\$400		\$0		\$0.01	\$40	\$3	\$4.80
DISC	8 FT	12	1	\$700		\$8		\$0.60	\$93	\$7	\$8.04
SPRINKLER		3,020	2	\$5,000		\$142		\$0.05	\$667	\$50	\$0.24
DRILL	12 FT	3	1	\$2,200		\$3		\$1.06	\$440	\$22	\$157.11
SWATHER	14 FT	34	1	\$3,900	\$187	\$60	\$5.43	\$1.74	\$1,450	\$144	\$46.35
NATURAL GAS WELL		3,020	2	\$31,000	\$8,417	\$604	\$2.79	\$0.20	\$4,133	\$308	\$1.55
				\$53,250	\$9,265	\$1,383			\$9,142	\$764	

TABLE 6. Alfalfa establishment, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County
Projected 2004.

Planting dates: September 1 - November 1

ITEM	PRICE	QUANTITY	PURCHASED INPUTS					TOTAL
<u>PURCHASED INPUTS</u>								
ALFALFA SEED	\$2.80	30 LBS	\$84.00					\$84.00
PUMP WATER*		8 AC. IN.						
SUBTOTAL			\$84.00					\$84.00
<u>PREHARVEST OPERATIONS</u>								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.63	\$2.11	\$1.31	\$3.96	\$10.01
PLOW	50 HP	1.05 HR		\$7.09	\$5.69	\$3.79	\$19.37	\$35.94
DISC (2X)	50 HP	0.78 HR		\$5.27	\$4.23	\$3.04	\$14.00	\$26.54
FLOAT (2X)	50 HP	0.64 HR		\$4.32	\$3.47	\$2.12	\$9.42	\$19.33
DRILL	50 HP	0.21 HR		\$1.42	\$1.14	\$0.91	\$35.07	\$38.55
IRRIGATE (4X)		2.00 HR		\$12.90	\$33.63	\$2.98	\$21.57	\$71.08
SUBTOTAL		5.07 HR		\$33.62	\$50.28	\$14.15	\$103.39	\$201.45
<u>OVERHEAD EXPENSES</u>								
DOWNTIME		0.77 HR		\$5.18				\$5.18
EMPLOYEE BENEFITS				\$4.03				\$4.03
FARM INSURANCE			\$0.40					\$0.40
SUPERVISION AND MANAGEMENT				\$14.95				\$14.95
SUBTOTAL		0.77 HR	\$0.40	\$24.17				\$24.57
<u>TOTAL OPERATING EXPENSES</u>		5.84 HR	\$84.40	\$57.79	\$50.28	\$14.15	\$103.39	\$310.02

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2004.
Harvesting dates: May 10 - October 15

ITEM	PRICE	YIELD						TOTAL	
GROSS RETURNS									
ALFALFA HAY	\$130.00	5.00 TONS (STACKED)						\$650.00	
TOTAL							\$650.00		
PURCHASED INPUTS									
	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL	
FERT. (ALFALFA MIX)	\$0.16	250 LBS	\$40.00					\$40.00	
INSECTICIDE	\$23.97	1 ACRE	\$23.97					\$23.97	
WIRE	\$0.36	56 LBS	\$20.16					\$20.16	
ESTABLISHMENT: Principal		10 YEARS					\$31.00	\$31.00	
: Interest							\$8.08	\$8.08	
PUMP WATER*		45 AC. IN.							
SUBTOTAL			\$84.13				\$39.08	\$123.22	
PREHARVEST OPERATIONS									
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
IRRIGATE (11X)		5.50 HR		\$35.48	\$189.18	\$16.77	\$121.33	\$362.75	
SUBTOTAL				\$35.48	\$189.18	\$16.77	\$121.33	\$362.75	
HARVEST OPERATIONS									
SWATHER (5X)	14 FT	0.80 HR		\$5.40	\$4.34	\$1.39	\$37.08	\$48.21	
BALER, PTO (5X)	50 HP	1.05 HR		\$7.09	\$5.69	\$4.35	\$20.26	\$37.39	
BALEWAGON, PTO (5X)	50 HP	1.00 HR		\$6.75	\$5.42	\$6.18	\$30.37	\$48.72	
SUBTOTAL				\$19.24	\$15.46	\$11.93	\$87.70	\$134.33	
OVERHEAD EXPENSES									
DOWNTIME		0.71 HR		\$4.81				\$4.81	
EMPLOYEE BENEFITS				\$6.57				\$6.57	
FARM INSURANCE			\$0.66					\$0.66	
LAND TAXES							\$2.99	\$2.99	
SUPERVISION AND MANAGEMENT				\$32.93				\$32.93	
OTHER EXPENSES			\$129.99					\$129.99	
SUBTOTAL				\$44.30				\$2.99	\$177.94
TOTAL OPERATING EXPENSES				\$99.01	\$204.64	\$28.69	\$251.10	\$798.23	
NET OPERATING PROFIT							(\$148.23)		
INTEREST ON OPERATING CAPITAL		(\$95.84 @ 6.50%						\$6.23	
INTEREST ON EQUIPMENT INVESTMENT							\$78.14		
RETURN TO LAND AND RISK							(\$232.61)		

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

BUDGET SUMMARY

GROSS RETURN		\$650.00	
VARIABLE OPERATING EXPENSES	\$454.35		
RETURN OVER VARIABLE EXPENSES	\$195.65	(GROSS MARGINS)	
FIXED EXPENSES	\$251.10		
NET FARM INCOME	(\$55.45)	(RETURNS TO CAPITAL, LABOR, LAND & RISK)	
LABOR AND MANAGEMENT COST	\$99.01		
NET OPERATING PROFIT	(\$154.46)	(RETURNS TO CAPITAL, LAND & RISK)	
CAPITAL COSTS	\$78.14		
RETURN TO LAND AND RISK		(\$232.61)	

TABLE 8. Oats for hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2004.
 Planting dates: September 1 - November 1
 Harvesting dates: April 15 - May 15

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
OATS FOR HAY	\$120.00	3.75 TONS (STACKED)						\$450.00
TOTAL								\$450.00
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PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
OAT SEED	\$0.30	100 LBS	\$30.00					\$30.00
NITROGEN (N)	\$0.29	100 LBS	\$29.00					\$29.00
PUMP WATER*		18 AC. IN.						
SUBTOTAL			\$59.00					\$59.00
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PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.63	\$2.11	\$1.52	\$7.00	\$13.27
PLOW	50 HP	1.05 HR		\$7.09	\$5.69	\$3.79	\$19.37	\$35.94
DISC (2X)	50 HP	0.78 HR		\$5.27	\$4.23	\$3.04	\$14.00	\$26.54
FLOAT (2X)	50 HP	0.64 HR		\$4.32	\$3.47	\$2.12	\$9.42	\$19.33
DRILL	50 HP	0.21 HR		\$1.42	\$1.14	\$0.91	\$35.07	\$38.55
IRRIGATE (4X)		2.00 HR		\$12.90	\$75.67	\$6.71	\$48.53	\$143.81
SUBTOTAL		5.07 HR		\$33.62	\$92.32	\$18.10	\$133.39	\$277.43
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HARVEST OPERATIONS								
SWATHER	14 FT	0.16 HR		\$1.08	\$0.87	\$0.28	\$7.42	\$9.64
BALER, PTO	50 HP	0.21 HR		\$1.42	\$1.14	\$0.87	\$4.05	\$7.48
BALE WAGON	50 HP	0.20 HR		\$1.35	\$1.08	\$1.24	\$6.07	\$9.74
SUBTOTAL		0.57 HR		\$3.85	\$3.09	\$2.39	\$17.54	\$26.87
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OVERHEAD EXPENSES								
DOWNTIME		0.91 HR		\$6.14				\$6.14
EMPLOYEE BENEFITS				\$4.50				\$4.50
FARM INSURANCE			\$0.45					\$0.45
LAND TAXES							\$1.49	\$1.49
SUPERVISION AND MANAGEMENT				\$21.82				\$21.82
OTHER EXPENSES			\$65.00					\$65.00
SUBTOTAL		0.91 HR	\$65.45	\$32.46			\$1.49	\$99.40
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TOTAL OPERATING EXPENSES		6.55 HR	\$124.45	\$69.93	\$95.41	\$20.48	\$152.42	\$462.70
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NET OPERATING PROFIT								(\$12.70)
INTEREST ON OPERATING CAPITAL		(\$57.56 @ 6.50%)						\$3.74
INTEREST ON EQUIPMENT INVESTMENT								\$54.76
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RETURN TO LAND AND RISK								(\$71.19)

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

BUDGET SUMMARY

GROSS RETURN		\$450.00	
VARIABLE OPERATING EXPENSES	\$244.08		
RETURN OVER VARIABLE EXPENSES		\$205.92	(GROSS MARGINS)
FIXED EXPENSES	\$152.42		
NET FARM INCOME		\$53.49	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$69.93		
NET OPERATING PROFIT		(\$16.44)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$54.76		
RETURN TO LAND AND RISK		(\$71.19)	

TABLE 9. Sorghum-sudan hay, sprinkler-irrigated, budgeted per acre costs and returns for a 50 acre part-time farm, Tularosa Basin, Otero County, Projected 2004.
Planting dates: May 1 - June 1
Harvesting dates: June 1 - August 1

ITEM	PRICE	YIELD						TOTAL
GROSS RETURNS								
SORGHUM/SUDAN HAY	\$100.00	3.75 TONS (STACKED)						\$375.00
TOTAL							\$375.00	
PURCHASED INPUTS								
PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS				FIXED COST	TOTAL
SEED	\$1.04	50 LBS	\$52.00					\$52.00
NITROGEN (N)	\$0.29	100 LBS	\$29.00					\$29.00
PUMP WATER*		16 AC. IN.						
SUBTOTAL			\$81.00					\$81.00
PREHARVEST OPERATIONS								
	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL
DISC	50 HP	0.39 HR		\$2.63	\$2.11	\$1.52	\$7.00	\$13.27
FLOAT (2X)	50 HP	0.64 HR		\$4.32	\$3.47	\$2.12	\$9.42	\$19.33
DRILL	50 HP	0.21 HR		\$1.42	\$1.14	\$0.91	\$35.07	\$38.55
IRRIGATE (4X)		2.00 HR		\$12.90	\$67.26	\$5.96	\$43.14	\$129.27
SUBTOTAL		3.24 HR		\$21.27	\$73.99	\$10.52	\$94.63	\$200.41
HARVEST OPERATIONS								
SWATHER (2X)	14 FT	0.32 HR		\$2.16	\$1.74	\$0.56	\$14.83	\$19.28
BALER, PTO (2X)	50 HP	0.42 HR		\$2.84	\$2.28	\$1.74	\$8.10	\$14.96
BALE WAGON (2X)	50 HP	0.40 HR		\$2.70	\$2.17	\$2.47	\$12.15	\$19.49
SUBTOTAL		1.14 HR		\$7.70	\$6.18	\$4.77	\$35.08	\$53.73
OVERHEAD EXPENSES								
DOWNTIME		0.60 HR		\$4.02				\$4.02
EMPLOYEE BENEFITS				\$3.48				\$3.48
FARM INSURANCE			\$0.35					\$0.35
LAND TAXES							\$1.49	\$1.49
SUPERVISION AND MANAGEMENT				\$18.19				\$18.19
OTHER EXPENSES			\$65.00					\$65.00
SUBTOTAL		0.60 HR	\$65.34	\$25.68			\$1.49	\$92.52
TOTAL OPERATING EXPENSES		4.98 HR	\$146.34	\$54.65	\$80.17	\$15.29	\$131.20	\$427.66
NET OPERATING PROFIT							(\$52.66)	
INTEREST ON OPERATING CAPITAL		(\$62.54	@	6.50%)	\$4.07	
INTEREST ON EQUIPMENT INVESTMENT							\$50.39	
RETURN TO LAND AND RISK							(\$107.11)	

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

BUDGET SUMMARY

GROSS RETURN		\$375.00	
VARIABLE OPERATING EXPENSES	\$245.87		
RETURN OVER VARIABLE EXPENSES	\$129.13	(GROSS MARGINS)	
FIXED EXPENSES	\$131.20		
NET FARM INCOME		(\$2.08)	(RETURNS TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	\$54.65		
NET OPERATING PROFIT		(\$56.72)	(RETURNS TO CAPITAL, LAND & RISK)
CAPITAL COSTS	\$50.39		
RETURN TO LAND AND RISK		(\$107.11)	

TABLE 10. Summary of per acre costs and returns, 50-acre part-time farm, Tularosa Basin, Otero County, Projected 2004.

	ALFALFA ESTABLISHMENT	ALFALFA HAY	OATS FOR HAY	SORGHUM SUDAY HAY
		TONS	TONS	TONS
PRIMARY YIELD		5.00	3.75	3.75
PRIMARY PRICE		\$130.00	\$120.00	\$100.00
GOVERNMENT PAYMENTS		\$0.00	\$0.00	\$0.00
SECOND INCOME		\$0.00	\$0.00	\$0.00
GROSS RETURN		\$650.00	\$450.00	\$375.00
CASH OPERATING EXPENSES				
SEED	\$84.00		\$30.00	\$52.00
FERTILIZER		\$40.00	\$29.00	\$29.00
CHEMICALS		\$23.97		
CROP INSURANCE				
OTHER PURCHASED INPUTS		\$20.16		
CANAL WATER				
FUEL, OIL & LUBRICANTS-EQUIPMENT	\$16.65	\$15.46	\$19.74	\$12.91
FUEL-IRRIGATION	\$33.63	\$189.18	\$75.67	\$67.26
REPAIRS	\$14.15	\$28.69	\$20.48	\$15.29
CUSTOM CHARGES				
LAND TAXES		\$2.99	\$1.49	\$1.49
OTHER EXPENSES	\$0.40	\$130.65	\$65.45	\$65.34
TOTAL CASH EXPENSES	\$148.84	\$451.11	\$241.84	\$243.30
RETURN OVER CASH EXPENSES	(\$148.84)	\$198.89	\$208.16	\$131.70
FIXED EXPENSES	\$103.39	\$248.11	\$150.93	\$129.71
TOTAL EXPENSES	\$252.23	\$699.22	\$392.77	\$373.01
NET FARM INCOME	(\$252.23)	(\$49.22)	\$57.23	\$1.99
LABOR AND MANAGEMENT COSTS	\$57.79	\$99.01	\$69.93	\$54.65
NET OPERATING PROFIT	(\$310.02)	(\$148.23)	(\$12.70)	(\$52.66)
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		\$6.23	\$3.74	\$4.07
INTEREST ON EQUIPMENT INVESTMENT		\$78.14	\$54.76	\$50.39
TOTAL CAPITAL COSTS	\$0.00	\$84.37	\$58.50	\$54.45
RETURN TO LAND AND RISK	(\$310.02)	(\$232.61)	(\$71.19)	(\$107.11)

TABLE 11. Whole farm summary, Tularosa Basin, Otero County,
Projected 2004.

GROSS RETURNS		
ALFALFA HAY	40.00 ACRES	
CROP		\$26,000
OATS FOR HAY	5.00 ACRES	
CROP		\$2,250
SORGHUM/SUDAN	5.00 ACRES	
CROP		\$1,875
GROSS RETURN		<u>\$30,125</u>
CASH OPERATING EXPENSES		
SEED		\$746
FERTILIZER		\$1,890
CHEMICALS		\$959
CROP INSURANCE		\$0
OTHER PURCHASED INPUTS		\$806
CANAL WATER		\$0
FUEL, OIL & LUBRICANTS-EQUIPMENT		\$848
FUEL-IRRIGATION		\$8,416
REPAIRS		\$1,383
CUSTOM CHARGES		\$0
LAND TAXES		\$134
OTHER EXPENSES		\$5,882
TOTAL CASH EXPENSES		<u>\$21,065</u>
RETURN OVER CASH EXPENSES		\$9,060
FIXED EXPENSES		\$9,853
TOTAL EXPENSES		\$30,918
NET FARM INCOME		(\$793)
LABOR AND MANAGEMENT COSTS		\$4,815
NET OPERATING PROFIT		(\$5,607)
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL		\$288
INTEREST ON EQUIPMENT INVESTMENT		\$3,651
TOTAL CAPITAL COSTS		<u>\$3,940</u>
RETURN TO LAND AND RISK		<u>(\$9,547)</u>

LAND VALUE	RETURNS TO RISK*	RETURN ON INVESTMENT**
\$700 /ACRE	(\$10,947)	-6.35%
\$900 /ACRE	(\$11,347)	-5.71%
\$1,100 /ACRE	(\$11,747)	-5.18%
\$1,300 /ACRE	(\$12,147)	-4.74%
\$1,500 /ACRE	(\$12,547)	-4.37%
\$1,700 /ACRE	(\$12,947)	-4.06%
\$1,900 /ACRE	(\$13,347)	-3.78%
\$2,100 /ACRE	(\$13,747)	-3.54%

* 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)