TABLE 1. Acreage Summary, Rio Arriba County, Actual 2024

BUDGET AREA..........	RIO ARRIBA COUNTY, 2024.		
FARM SIZE...............	23 ACRES		
IRRIGATION TYPE......	SPRINKLER		
NUMBER OF CROPS...	1		

		WATER USE	
ACREAGE SUMMARY:	LAND USE (ACRES)	AC.IN. PER AC.	TOTAL AC.IN.
ALFALFA ESTABLISHMENT	3.00	39	117
ALFALFA	20.00	46	920
TOTAL	23.00		1,037
ACRE FEET PER ACRE OF WATER RIGHTS			3.76

TABLE 2. Basic cost information for Rio Arriba County, Actual 2024

Item				
Labor Wage Rate:				
Equipment operators		$/hour		$17.92
General & Irrigators		$/hour		$16.77
Purchased Inputs:				
Fertilizer:				
Phosphate (P205)		$/pound		$0.45
Seed:				
Alfalfa		$/pound		$4.12
Oats		$/pound		$0.70
Wire		$/pound		$1.32
Canal Water		$/acre foot		$45.00
Energy:				
Diesel fuel		$/gallon		$3.46
Gasoline		$/gallon		$2.98
Electricity		cents/KwHr		12.31
LP Gas		$/gallon		$2.45
Natural Gas		$/MCF		$4.05
(service charge)		$/month		$10.00
Employee Liability Insurance		$/$1,000 wages		$20.00
Employee Benefits		percent/wages		18.00%
Labor Downtime		percent		25.00%
Financial Rates:				
Operating Capital Interest Rate		percent		9.25%
Land Interest Rate		percent		8.15%
Equipment Interest Rate		percent		7.15%
Real Interest Rate		percent		1.82%
Land Taxes	$392.00	/acre (full value)		$3.78
Personal Property Tax Rate	- NR	$/$1,000	(Assessed	$28.92
	- R		Value)	$24.67
Supervision Factors				
Field Crop-Irrigation		$/labor hour		$1.00
Field Crop-Equipment & General		$/labor hour		$0.50
Management Rate		percent		7.00%

TABLE 3. Overhead cost information for Rio Arriba County, Actual 2024

Item					
Electricity (Domestic & Shop)			$134.40	per month	$1,613
Telephone			$96.00	per month	$1,152
Accounting & Legal					$570
Misc. Supplies & Hand Tools					$8,000
Pickup and Auto					
miles	13,184	@	$0.670	per mile	$8,833
Insurance					
- general liability (non-employee)					$1,190
- fire/theft					$774
Property Taxes					
- non-farm land					$0
- other than land & machinery					$6,010
Building repairs and maintenance					$595
Dues, fees, publications					$294
Farmstead Equipment					$192
				Total	$29,224
			Total per planted acre		$1,461.20

TABLE 5. Equipment summary for an 23 acre sprinkler-irrigated farm, Rio Arriba County, Actual 2024

EQUIPMENT ITEM & SIZE		ANNUAL HOURS OF USE	NUMBER	TOTAL VALUE	VARIABLE COSTS FUEL, OIL, LUBRICANT	REPAIR	FUEL, OIL PER HR	REPAIR PER HR	FIXED COSTS DEPRECIATION	TAXES	TOTAL PER HR	AFALFA PORTION ANNUAL HC	fixed cost for alfalf
TRACTOR	65 HP	210	1	$25,000	$2,286	$1,109	$10.89	$5.28	$1,100	$265	$6.50	83.26	$2.58
TRACTOR	100 HP	140	1	$40,000	$2,019	$1,091	$1.00	$7.79	$3,167	$458	$25.89	41.17	$7.61
TRACTOR	150 HP	110	1	$50,000	$2,380	$2,475	$21.63	$22.50	$6,000	$723	$61.12	30.59	$17.00
TRACTOR	150 HP	180	1	$120,000	$3,894	$1,296	$21.63	$7.20	$8,000	$771	$48.73	18.17	$4.92
SWATHER	14 FT	25	1	$3,900		$34		$1.38	$1,375	$133	$60.30	11.04	$26.63
BALER, PTO	2 JD WIRE	45	1	$13,500		$36		$0.81	$1,350	$130	$32.89	14.49	$10.59
BALE WAGON, PTO		45	1	$1,500		$130		$2.88	$800	$77	$19.49	13.8	$5.98
DISC	12 FT	13	1	$2,250		$25		$1.94	$300	$22	$24.75	1.02	$1.94
PLOW	3-14 IN	16	1	$3,350		$46		$2.88	$447	$32	$29.94	2.01	$3.76
DITCHER(DOUBLE MOLDBOARD)		8	1	$1,250		$0		$0.05	$167	$12	$22.34	4.6	$12.85
HARROW	12 FT	8	1	$300		$0		$0.01	$40	$3	$5.36	0.57	$0.38
DRILL	12 FT	6	1	$2,200		$6		$1.06	$440	$21	$76.87	0.63	$8.07
FERT SPREADER		7	1	$2,500		$7		$1.00	$333	$24	$51.06	2.3	$16.78
SIDEROLL SPRINKLER		79	1	$5,000				$0.95	$667	$48	$9.09	78.66	$9.09
				$270,750	$10,579	$6,256			$24,185	$2,719			

annual hours of use includes not only alfafa but other works

EQUIPMENT LIST

ITEM		NEW VALUE	USED VALUE	YEARS LIFE	EQUIP CODE	MAX HOURS	FUEL UNIT/HR	LUBE COEF	ACCUM HOURS	AGE	INTEREST EXPENSE
TRACTOR	65 HP	55000.00	25000.00	50.00	1.00	800.00	2.86	0.10	4200.00	20.00	1966.25
TRACTOR	100 HP	95000.00	40000.00	30.00	1.00	800.00	4.40	0.10	3500.00	25.00	3396.25
TRACTOR	150 HP	150000	50000	25	1.00	800	6.6	0.1	1650.00	15	5362.50
TRACTOR	150 HP	160000	120000	20	1.00	800	6.6	0.1	1440.00	8	5720.00
SWATHER	14 FT	27500.00	3900.00	20.00	2.00	800.00			350.00	14.00	983.13
BALER, PTO	2 WIRE	27000.00	13500.00	20.00	2.00	500.00			225.00	5.00	965.25
BALE WAGON, PTO		16000.00	1500.00	20.00	5.00	800.00			270.00	6.00	572.00
DISC	12 FT	4500.00	2250.00	15.00	3.00	300.00			208.00	16.00	160.88
PLOW	3-14 IN	6700.00	3350.00	15.00	3.00	300.00			256.00	16.00	239.53
DITCHER(DOUBLE MOLDBOARD)		2500.00	1250.00	15.00	4.00	300.00			120.00	15.00	89.38
HARROW	12 FT	600.00	300.00	15.00	4.00	300.00			128.00	16.00	21.45
DRILL	12 FT	4400.00	2200.00	10.00	8.00	100.00			78.00	13.00	157.30
FERT SPREADER		5000.00	2500.00	15.00	9.00	200.00			84.00	12.00	178.75
SIDEROLL SPRINKLER		10000.00	5000.00	15.00		8742.00			1179.90	15.00	357.50

USAGE LIST

ALFALFA EST.	ALFALFA HAY	PER ACRE TOTALS		
-------hours per acre------				
1.60	2.02	3.62	TRACTOR	do
0.95	0.84	1.79	TRACTOR	
1.01	0.32	1.33	TRACTOR	
0.37	0.42	0.79	TRACTOR	
0.16	0.32	0.48	SWATHER	
0.21	0.42	0.63	BALER, PTO	
0.20	0.40	0.60	BALE WAGON, PTO	
0.34		0.34	DISC	
0.67		0.67	PLOW	
0.10	0.10	0.20	DITCHER(DOUBLE MOLDBOARD)	
0.19		0.19	HARROW	
0.21		0.21	DRILL	
0.05	0.05	0.10	FERT SPREADER	
1.50	1.92	3.42	SIDEROLL SPRINKLER	

INTEREST PRORATION

	OAT HAY	ALFALFA HAY
	-dollars per acre-	
TRACTOR	14.98	18.91
TRACTOR	23.05	20.38
TRACTOR	49.24	15.60
TRACTOR	11.76	13.35
SWATHER	6.29	12.58
BALER, PTC	4.50	9.01
BALE WAG(	2.54	5.08
DISC	4.21	0.00
PLOW	10.03	0.00
DITCHER(D	1.12	1.12
HARROW	0.51	0.00
DRILL	5.51	0.00
FERT SPRE	1.28	1.28
SIDEROLL S	6.82	8.73
TOTAL	**141.82**	**106.04**

ALFALFA ESTABLISHMENT   ACRES: 3   CANAL WATER: 39.00
------- -------------

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
PLOW	150 HP	1.00	0.67	0.67	
DISC	150HP	2.00	0.17	0.34	
HARROW	100HP	1.00	0.19	0.19	
FERTILIZE	100 HP	1.00	0.05	0.05	
DRILL	100 HP	1.00	0.21	0.21	
DITCHER	65 HP	2.00	0.05	0.10	
IRRIGATE	65 HP	6.00	0.25	1.50	
	100 HP	5	0.06	0.30	
SWATHER	150 HP	1.00	0.16	0.16	
BALER	150 HP	1.00	0.21	0.21	
BALE WAGON	100 HP	1.00	0.20	0.20	

ALFALFA HAY   ACRES: 20   CANAL WATER: 46.00
------- ---

MACHINE	POWER UNIT	TIMES OVER	ACCOMPLISHMENT RATE	TOTAL	CUSTOM
FERTILIZE	100 HP	1.00	0.05	0.05	
DITCHER	65 HP	2.00	0.05	0.10	
IRRIGATE	65 HP	6.00	0.32	1.92	
	100 HP	6	0.065	0.39	
SWATHER	150 HP	2.00	0.16	0.32	
BALER	150 HP	2.00	0.21	0.42	
BALE WAGON	100 HP	2.00	0.20	0.40	

ANNUAL REPAIR COSTS AS A PERCENT OF NEW VALUE

Hours of Use	1	2	3	4	5	6	7	8	9
	*	*	*	*	**	**	**	**	**
0	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
50	0.000060	0.000020	0.000620	0.000020	0.000080	0.000140	0.000040	0.000240	0.000200
100	0.000060	0.000020	0.000500	0.000020	0.000140	0.000220	0.000100	0.000380	0.000300
200	0.000030	0.000030	0.000430	0.000040	0.000180	0.000260	0.000110	0.000510	0.000260
300	0.000030	0.000050	0.000390	0.000060	0.000230	0.000310	0.000140	0.000630	0.000400
400	0.000030	0.000060	0.000370	0.000090	0.000260	0.000340	0.000150	0.000710	0.000450
500	0.000030	0.000070	0.000360	0.000100	0.000280	0.000370	0.000170	0.000800	0.000630
600	0.000030	0.000090	0.000340	0.000120	0.000310	0.000390	0.000190	0.000860	0.000530
700	0.000030	0.000100	0.000340	0.000130	0.000330	0.000410	0.000200	0.000910	0.000560
800	0.000030	0.000110	0.000320	0.000150	0.000350	0.000430	0.000210	0.000980	0.000590
900	0.000030	0.000120	0.000320	0.000160	0.000370	0.000450	0.000230	0.001020	0.000600
1000	0.000090	0.000130	0.000310	0.000180	0.000380	0.000460	0.000230	0.001070	0.000630
1200	0.000045	0.000145	0.000305	0.000205	0.000405	0.000480	0.000245	0.001135	0.000710
1400	0.000045	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1500	0.000150	0.000170	0.000300	0.000230	0.000435	0.000510	0.000410	0.001260	0.000765
1600	0.000150	0.000190	0.000285	0.000255	0.000465	0.000525	0.000135	0.001235	0.000805
1800	0.000075	0.000170	0.000285	0.000285	0.000485	0.000550	0.000295		
2000	0.000110	0.000265	0.000280	0.000305	0.000505	0.000565	0.000310		
2500	0.000056								
3000	0.000070								
3500	0.000082								
4000	0.000096								
4500	0.000108								
5000	0.000122								
5500	0.000136								
6000	0.000148								
6500	0.000162								
7000	0.000176								
7500	0.000188								
8000	0.000204								

* Based on unpublished data of D. R. Hunt, Department of Agricultural Engineering, University of Illinois.

** Based on "Agricultural Machinery Data" in Agricultural Engineers Yearbook, 1983.

Codes

1 tractors
2 balers, combines, forage harvesters, windrowers, pickups
3 rotary hoe, disks, moldboard plows, chisels, field cultivators row cultivators, laser plane
4 harrows, wagons, floats, roto buck, drag, roller, water furrow, bed shaper
5 balewagons, cotton pickers, cotton strippers, corn pickers corn heads, forage equipment, rotary mowers, stalk choppers, feed wagons, farm trucks
6 rakes, cutterbar mower
7 baler w/ engine, manure spreader
8 planters, drills, seeding equipment, mounted sprayers
9 fertilizer distributing equipment

TABLE 6. Alfalfa establishment, springkler-irrigated, budgeted per acre costs and returns for an 23 acre farm, Rio Arriba County, Actual 2024

Planting dates: April 15 - June 1

Harvesting dates: June 15 - July 1

ITEM	PRICE	YIELD	TOTAL
GROSS RETURNS			
OAT HAY	$187.50	2.25 Ton	$421.88
GRAZING	$20.00	0.00 AUM	$0.00
TOTAL			$421.88

PURCHASED INPUTS	PRICE	QUANTITY	PURCHASED INPUTS	FIXED COST	TOTAL
ALFALFA SEED	$4.12	20 LBS	$82.40		$82.40
OAT SEED	$0.70	45 LBS	$31.50		$31.50
PHOSPHATE (P2O5)	$0.45	45 LBS	$20.25		$20.25
WIRE	$1.32	19 LBS	$25.45		$25.45
CANAL WATER		39 AC. IN.		$0.00	$0.00
CANAL WATER (MAINTENANCE)		1 ACRE		$8.00	$8.00
SUBTOTAL			$159.60	$8.00	$167.60

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE	PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
PLOW	150 HP	0.67 HR		$12.01	$14.50	$17.01	$43.47	$86.98	Tractor 1
DISC (2X)	150 HP	0.34 HR		$6.09	$7.36	$8.31	$21.44	$43.20	Tractor 1
HARROW	100 HP	0.19 HR		$3.40	$0.19	$1.48	$4.99	$10.07	
FERTILIZE	100 HP	0.05 HR		$0.90	$0.05	$0.44	$2.13	$3.52	
DRILL	100 HP	0.21 HR		$3.76	$0.21	$1.86	$7.13	$12.96	
DICHER	65 HP	0.10 HR		$1.79	$1.09	$0.53	$1.93	$5.35	
IRRIGATE (4X)	65 HP	1.50 HR		$25.16	$16.33	$9.35	$23.38	$74.21	
	100 HP	0.30 HR		$5.03	$6.49	$2.62	$10.49	$24.64	
SUBTOTAL		3.36 HR		$58.14	46.21	41.59	114.98	260.92	
HARVEST OPERATIONS									
SWATHER	150 HP	0.16 HR		$2.87	$3.46	$1.37	$12.06	$19.76	Tractor 2
BALER	150 HP	0.21 HR		$3.76	$4.54	$1.68	$12.46	$22.45	Tractor 2
BALE WAGON	100 HP	0.20 HR		$3.58	$0.20	$2.13	$6.37	$12.29	
SUBTOTAL		0.57 HR		$10.21	$8.20	$5.19	$30.89	$54.50	
OVERHEAD EXPENSES									
DOWNTIME		0.98 HR		$17.61				$17.61	
EMPLOYEE BENEFITS				$12.30				$12.30	
INSURANCE			$1.37					$1.37	
LAND TAXES							$3.78	$3.78	
SUPERVISION AND MANAGEMENT				$32.86				$32.86	
SUBTOTAL		0.98 HR	$1.37	$62.77			$3.78	$67.92	
TOTAL OPERATING EXPENSES		4.91 HR	$160.97	$131.13	$54.41	$46.78	$157.64	$550.93	
NET OPERATING PROFIT								($129.06)	
INTEREST ON OPERATING CAPITAL		($102.87 @	9.25%	)				$9.52	
INTEREST ON EQUIPMENT INVESTMENT								$141.82	
RETURN TO LAND AND RISK								($280.40)	

TABLE 7. Alfalfa hay, sprinkler-irrigated, budgeted per acre costs and returns for an 23 acre farm, Rio Arriba County,
Actual 2024
Harvesting dates: June 1 - October 15

ITEM	PRICE	YIELD		TOTAL
GROSS RETURNS				
ALFALFA HAY	$210.00	2.50	TONS	$525.00
GRAZING	$20.00	2.00	AUM	$40.00
TOTAL				$565.00

PURCHASED INPUTS	PRICE	QUANTITY		PURCHASED INPUTS	FIXED COST	TOTAL	
PHOSPHATE (P2O5)	$0.45	14.00	LBS	$6.30		$6.30	
WIRE	$1.32	43.00	LBS	$56.76		$56.76	
ESTABLISHMENT: Principal		6.00	YEARS		$46.73	$46.73	
: Interest					$25.37	$25.37	
CANAL WATER		46.00	AC. IN.		$0.00	$0.00	no charge
CANAL WATER (MAINTENANCE)		1	ACRE		$8.00	$8.00	
SUBTOTAL				$63.06	$80.10	$143.16	

PREHARVEST OPERATIONS	POWER UNIT	ACCOMPLISHMENT RATE		PURCHASED INPUTS	LABOR	FUEL & LUBE	REPAIRS	FIXED COST	TOTAL	
FERTILIZE	100 HP	0.05	HR		$0.90	$0.05	$0.44	$2.13	$3.52	
DITCHER	65 HP	0.10	HR		$1.79	$1.09	$0.53	$1.93	$5.35	
IRRIGATE (4X)	65 HP	1.92	HR		$32.20	$20.90	$11.96	$29.93	$94.99	
	100 HP	0.39	HR		$6.54	$0.39	$3.41	$13.64	$23.98	
SUBTOTAL		2.07	HR		$34.89	$22.04	$12.93	$34.00	$103.86	
HARVEST OPERATIONS										
SWATHER (2X)	150HP	0.32	HR		$5.73	$6.92	$2.74	$24.11	$39.52	tractor 2
BALER (2X)	150 HP	0.42	HR		$7.53	$9.09	$3.36	$24.91	$44.89	tractor 2
BALE WAGON (2X)	100 HP	0.40	HR		$7.17	$0.40	$4.27	$12.75	$24.58	
SUBTOTAL		1.14	HR		$20.43	$16.41	$10.38	$61.78	$108.99	
OVERHEAD EXPENSES										
DOWNTIME		0.80	HR		$14.38				$14.38	
EMPLOYEE BENEFITS					$9.96				$9.96	
INSURANCE				$1.11					$1.11	
LAND TAXES								$3.78	$3.78	
SUPERVISION AND MANAGEMENT					$42.51				$42.51	
OTHER EXPENSES									$0.00	
SUBTOTAL		0.80	HR	$1.11	$66.84			$3.78	$71.73	
TOTAL OPERATING EXPENSES		4.01	HR	$64.17	$122.16	$38.45	$23.31	$179.66	$427.74	
NET OPERATING PROFIT									$137.26	
INTEREST ON OPERATING CAPITAL		($42.51	@	9.25%	)				$3.93	
INTEREST ON EQUIPMENT INVESTMENT									$106.04	
RETURN TO LAND AND RISK									$27.29	

BUDGET SUMMARY

GROSS RETURN		$565.00	
VARIABLE OPERATING EXPENSES	$125.92		
RETURN OVER VARIABLE EXPENSES		$439.08	(GROSS MARGIN)
FIXED EXPENSES	$179.66		
NET FARM INCOME		$259.42	(RETURN TO CAPITAL, LABOR, LAND & RISK)
LABOR AND MANAGEMENT COST	$122.16		
NET OPERATING PROFIT		$137.26	(RETURN TO CAPITAL, LAND & RISK)
CAPITAL COSTS	$109.97		
RETURN TO LAND AND RISK		$27.29	

TABLE 8. Summary of per acre costs and returns for an 23 acre farm, Rio Arriba County, Actual 2024

	ALFALFA ESTABLISHMENT	ALFALFA HAY
	TONS	TONS
PRIMARY YIELD	2.25	2.50
PRIMARY PRICE	$187.50	$210.00
GOVERNMENT PAYMENTS	$0.00	$0.00
SECOND INCOME	$0.00	$40.00
GROSS RETURN	$421.88	$565.00
CASH OPERATING EXPENSES		
SEED	$113.90	
FERTILIZER	$20.25	$6.30
CHEMICALS		
CROP INSURANCE		
OTHER PURCHASED INPUTS	$25.45	$56.76
CANAL WATER		
FUEL, OIL & LUBRICANTS-EQUIPMENT	$38.08	$17.55
FUEL-IRRIGATION	$16.33	$20.90
REPAIRS	$46.78	$23.31
CUSTOM CHARGES		
LAND TAXES	$3.78	$3.78
OTHER EXPENSES	$1.37	$1.11
TOTAL CASH EXPENSES	$265.94	$129.70
RETURN OVER CASH EXPENSES	$155.93	$435.30
FIXED EXPENSES	$153.86	$175.88
TOTAL EXPENSES	$419.81	$305.58
NET FARM INCOME	$2.07	$259.42
LABOR AND MANAGEMENT COSTS	$131.13	$122.16
NET OPERATING PROFIT	($129.06)	$137.26
CAPITAL COSTS		
INTEREST ON OPERATING CAPITAL	$9.52	$3.93
INTEREST ON EQUIPMENT INVESTMENT	$141.82	$106.04
TOTAL CAPITAL COSTS	$151.34	$109.97
RETURN TO LAND AND RISK	($280.40)	$27.29

TABLE 9. Whole farm summary, Rio Arriba County, Actual 2024

GROSS RETURNS				
OAT HAY	3.00 ACRES			
CROP		$1,266		
ALFALFA HAY	20.00 ACRES			
CROP		$10,500		
GRAZING		$800		
GROSS RETURN				$12,566
CASH OPERATING EXPENSES				
SEED		$342		
FERTILIZER		$187		
CHEMICALS		$0		
CROP INSURANCE		$0		
OTHER PURCHASED INPUTS		$1,212		
CANAL WATER		$0		
FUEL, OIL & LUBRICANTS-EQUIPMENT		$465		
FUEL-IRRIGATION		$467		
REPAIRS		$607		
CUSTOM CHARGES		$0		
LAND TAXES		$87		
OTHER EXPENSES		$26		
TOTAL CASH EXPENSES			$3,392	
RETURN OVER CASH EXPENSES				$9,174
FIXED EXPENSES		$3,044		
TOTAL EXPENSES			$6,436	
NET FARM INCOME				$6,129
LABOR AND MANAGEMENT COSTS		$2,837		
NET OPERATING PROFIT				$3,293
CAPITAL COSTS				
INTEREST ON OPERATING CAPITAL		$107		
INTEREST ON EQUIPMENT INVESTMENT		$2,546		
TOTAL CAPITAL COSTS			$2,653	
RETURN TO LAND AND RISK				$639

LAND VALUE	RETURN TO RISK*	RETURN ON INVESTMENT**
$1,000 /ACRE	$276	1.13%
$2,500 /ACRE	($269)	1.03%
$4,000 /ACRE	($813)	0.94%
$5,500 /ACRE	($1,358)	0.86%
$7,000 /ACRE	($1,903)	0.80%
$8,500 /ACRE	($2,448)	0.75%

* 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)