

NET/ACRE AT 4,500 LBS./ACRE AND VARYING GRAIN PRICES

Price/CWT	\$ 3.00	\$ 3.50	\$ 4.00	\$ 4.50	\$ 5.00	\$ 5.50
Income/A	-\$48.00	-\$34.13	-\$20.25	-\$6.38	\$ 7.50	\$ 21.37

NET INCOME/ACRE @ \$4.00/CWT AND VARYING YIELD IN CWT/ACRE

CWT/A	35	40	45	50	55	60
Income/A	-\$44.92	-\$32.58	-\$20.25	-\$7.92	\$ 4.42	\$ 16.75

RELATIONSHIP BETWEEN YIELD CWT/A, TOTAL COSTS/A @ \$4.00/CWT

CWT/A	35	40	45	50	55	60
Total Costs/A	\$185	\$193	\$200	\$208	\$216	\$223
Cost/CWT	\$5.28	\$4.82	\$4.48	\$4.16	\$3.92	\$3.72

MANAGEMENT INCOME FROM VARYING YIELDS @ \$4.00/CWT GRAIN PRICE

Yield CWT/A	35	40	45	50	55	60
Cash, Dep., Int., Costs	\$177	\$184	\$191	\$198	\$206	\$213
Gross Income	140	160	180	200	220	240
Management Income	-\$ 37	-\$ 24	-\$ 11	\$ 2	\$ 14	\$ 27

Farm Advisor's Office
Glenn County

October 1977
400 Copies

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IRRIGATED

GRAIN

PRODUCTION COSTS

TENANT

LANDOWNER

BASIS



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EQUIPMENT FOR IRRIGATED GRAIN PRODUCTION IN GLENN COUNTY

Item	1977 Original Cost		Years Life	Annual Use (acres)	Fuel & Repairs Per Hr.	Non-Cash Overhead	
	Total	Per Acre				Depreciation	Interest @ 8%
Wheel tractor, 4 WD, diesel, 200 HP	\$60,000	\$60.00	15	1,000	\$8.00	\$4.00	\$2.40
Wheel tractor, diesel, 125 HP	30,000	30.00	15	1,000	4.25	2.00	1.20
Disk, stubble, 12'	12,000	12.00	15	1,000	4.80	.80	.48
Disk, offset, 18'	12,000	12.00	15	1,000	2.82	.80	.48
Chisel, heavy duty, 18'	4,000	4.00	15	1,000	1.68	.27	.16
Harrow, spiketooth, 30'	1,300	1.30	15	1,000	.72	.09	.05
Disk, border	1,000	1.00	15	1,000	.60	.07	.04
Plow, 7'	2,100	2.10	15	1,000	1.80	.14	.08
Triplane	8,500	8.50	15	1,000	1.80	.57	.34
Tool carrier, used	4,000	4.00	20	1,000		.20	.16
Combine, used, 16'	12,000	18.46	6	650	12.06	3.08	.74
Bankout, used, SP	12,000	18.46	10	650		1.85	.74
Pickup, 1/2 ton	7,000	7.00	3	1,000		2.33	.28
Shop buildings	25,000	25.00	30	1,000		.83	1.00
Tools	7,500	7.50	15	1,000		.50	.30
Siphons - 50 of 3"	1,300	1.30	8	1,000		.16	.05
TOTALS	\$199,700	\$212.62				\$17.69	\$8.50

SAMPLE COSTS TO PRODUCE IRRIGATED GRAIN
GLENN COUNTY

YIELD - 4500 lbs/acre

YEAR 1977-78

Operation	Hours Per Acre	Cash and Labor Costs Per Acre				Total	Your Cost Per/A
		Labor	Fuel and Repairs	Description of Materials	Materials		
Cultural Operation							
Chisel 1X	.12	\$.66	\$1.16			\$ 1.82	
Stubble disk 2X	.50	2.75	6.40			9.15	
Disk, offset 1X	.12	.66	1.30			1.96	
Fertilize	.15	.83	1.20	Rig rental @ \$1.25/A, 100 lbs N/A @ 15.5¢/lb, Tenant pays 2/3	\$11.58	13.61	
Harrow	.06	.33	.30			.63	
Prepare borders	.10	.55	.49			1.04	
Seed				125 lbs @ \$8.00/cwt = \$10.00			
				Airplane @ \$2.50/A	12.50	12.50	
Harrow	.07	.39	.35			.74	
Address				40 lbs N/A @ .25¢/lb = \$10.00; tenant pays 2/3; Airplane @ \$2.50/A	9.17	9.17	
Weed control				2,4-D @ 10 oz/A \$1.80; Airplane @ \$3.00/A	4.80	4.80	
Ditch preparation	.10	.55	.61			1.16	
Irrigate 3X	.90	3.60		18 acre inches	15.00	18.60	
Grain insurance					.60	.60	
Triplane 1X	.25	1.38	2.45			3.83	
Misc. (downtime, moving, service)	.25	1.38	2.00			3.38	
TOTAL CULTURAL COSTS	2.62	\$13.08	\$16.26		\$53.65	\$82.99	
Harvest Costs							
Combine	.50	\$ 2.75	\$ 6.03	Roadside deliver @ 10¢/cwt			
Bankout				Field handling	\$ 4.50	\$13.28	
TOTAL HARVEST COSTS	.50	\$ 2.75	\$ 6.03		\$ 4.50	\$13.28	
Cash Overhead							
Misc., office, etc. (6% of cultural and harvest costs \$96.27)						\$ 5.78	
Taxes (2.68) and insurance (.33) on equipment and buildings						3.01	
Rent 33-1/3% x 4500 lbs @ 4.00/cwt						60.00	
TOTAL CASH OVERHEAD						\$68.79	
TOTAL CASH COSTS						\$165.06	
Management: 5% of 4500 lbs @ \$4.00/cwt						\$ 9.00	
Annual Costs							
INVESTMENT		Per Acre		Depreciation	Interest		
Equipment tillage		\$180.12		\$16.36	\$ 7.20		
Shop and tools		32.50		1.33	1.30		
TOTAL INVESTMENT COSTS		\$212.62		\$17.69	\$ 8.50	\$ 26.19	
TOTAL COST PER ACRE						\$200.25	
Cost per cwt @ 4500 lbs/A yield						\$ 4.45	

BASIS OF IRRIGATED BARLEY OR WHEAT COST STUDY

1. The cost study is based on a 1,000 acre field crop operation with 350 acres of irrigated barley or wheat. Other crops grown on the ranch may include one or more of the following crops: seed crops, grain sorghum, field corn, rice, alfalfa hay, sugar beets, etc. Most of the equipment listed will be used on the entire acreage sometime during the year. Irrigation is based on open ditch-siphon system; however, other methods of irrigation such as underground pipe and valves are also used extensively in Glenn County. This cost study is figured on a tenant-landowner basis with the landlord receiving 1/3 of the gross income from the grain and paying 1/3 of the fertilizer (not including fertilizer application) cost. Since the current prices of wheat and barley are somewhat similar, this cost study might be used regardless of which grain is grown. It should be realized, however, that on heavy or poorly drained soils during wet years, wheat may have a potential of outyielding many barley varieties.
2. In allocating the equipment cost per acre in the equipment list, the following calculations were made: (a) unless otherwise indicated, "Original Cost" of equipment is the estimated new cost including sales tax; (b) "Cost per Acre" is the new cost divided by the number of acres the equipment will be used on; (c) "Depreciation" is based on the "Cost per Acre" divided by the expected life of the equipment; (d) "Interest" on investment is figured on one-half of the original cost per acre multiplied by 8%.
3. Miscellaneous expenses have been found to be about 6% of the total cultural and harvest costs. They include such costs as interest on operating money, use of pickup truck, office, etc.
4. Labor costs are based on a \$5.50 hourly rate for skilled labor and \$4.00 hourly rate for unskilled (irrigator). Included are cash wages, compensation insurance, Social Security, Unemployment Insurance, and other benefits that the employer might pay.
5. On the sheet which inventories the equipment for this irrigated grain operation, there is a column indicating "Cost per Hour." In the case of tractors and the combine, this represents an hourly operating cost including fuel and repairs. For the other pieces of equipment not requiring fuel, the "Cost per Hour" represents repairs only.
6. Management (what the grower's decision making is worth) is figured at 5% of the market value of the crop.
7. These sample costs to produce irrigated grain may not represent the cost of any one individual grower. However, growers may base their decisions as to which crops to grow by comparing cultural and harvest costs for specific crops with estimated gross income from the crops. This cost study should assist in this aspect of decision making as well as related investment and other fixed costs which are basically fixed regardless of the crop to be grown.
8. There is a column provided entitled "Your Cost Per Acre" which growers can use to insert their individual costs. Growers are encouraged to use this column which in turn should assist them with budget questions as well as evaluate their cost-income relationship with irrigated barley or wheat.
9. Several Glenn County irrigated grain growers furnished the basic information for this study. Appreciation is expressed to these growers.