

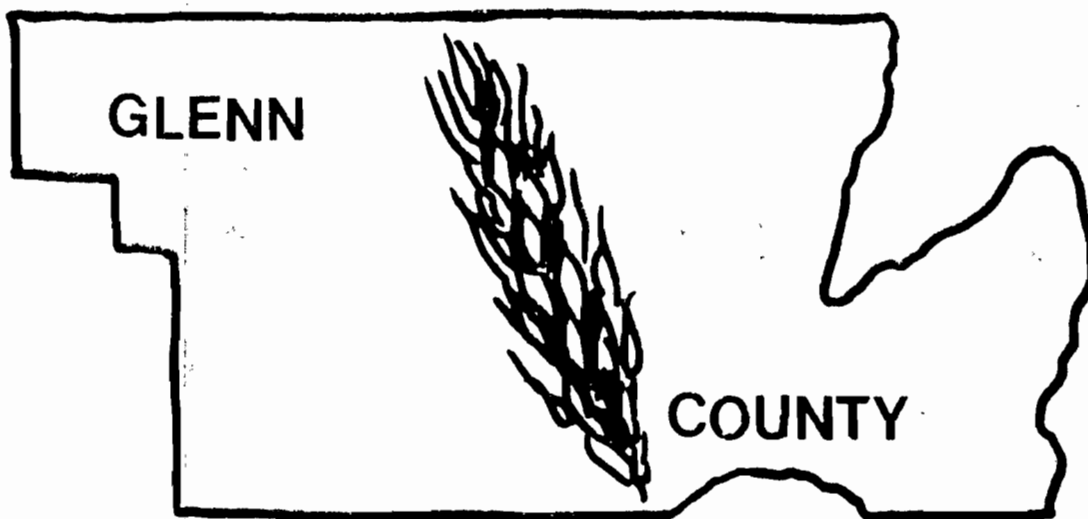
# *Irrigated*

WH-SV-90

# *Wheat*

# *Production Costs*

**Tenant  
Landowner  
Basis**



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**BASIS OF SAMPLE COSTS FOR IRRIGATED WHEAT**  
(Tenant-Landowner Basis)

1. The cost study is based on a 1,500 acre field crop operation with 375 acres of irrigated wheat. Other crops grown on the ranch may include one or more of the following crops: seed crops, grain sorghum, field corn, beans, legume seed crops, rice, alfalfa hay, sugarbeets, etc. Most of the equipment listed will be used on the entire acreage sometime during the year. Irrigation is based on open ditch-siphon, border system; however, other methods of irrigation such as underground pipe and valves, open ditch and gates and open ditch and beds are also used in Glenn County.

This cost study is figured on a tenant-landowner basis with the landlord receiving 25% of the gross income from the wheat with the tenant paying all cash production costs.

2. Every operation of every irrigated wheat grower in Glenn County is not necessarily the same. Therefore, the cost study is an effort to provide a basis rather than an absolute program of the cost of growing irrigated wheat. The study is a sample cost study and does not imply an average cost for producing irrigated wheat in Glenn County.

3. In allocating the equipment costs per acre the following calculations were made: (a) "Original Cost" of equipment is the new cost including sales tax. (b) "Depreciation" is straight line with no adjustment for Salvage Value. It is calculated by dividing the new cost per acre by the years of life. (c) "Interest" on investment is figured at one-half of the new cost per acre multiplied by the interest rate of 11%. One-half of the new cost is the average value of the equipment during its useful life. (d) The investment per acre used in the cost study is calculated at 60% of the depreciation and interest costs for all new equipment to reflect a mix of new and used equipment.

4. Fuel and Repair Costs:

The cost of production worksheets contain numbers in two columns with the headings Tractor/Implement No. and Implement No. which refer to the item number on the equipment table showing the fuel and repair costs per hour. This value is multiplied by the hours used per acre for each piece of equipment to obtain the cost per acre for fuel and repairs.

5. Office and business costs include phone, office supplies, legal and accounting fees, estimated at \$6,000 and a 3 cent/cwt charge for Wheat Commission assessment.

6. County taxes are calculated at 1% of the average assessed value of equipment, buildings and improvements.

7. Equipment insurance is calculated at 0.8% of the average value of the equipment.

8. Pickup costs are based on 16,000 miles per year for one pickup and 7,000 miles per year for a second pickup at \$0.15 per mile.

9. Labor costs are based on a \$9.50 hourly rate for skilled labor and \$6.50 hourly rate for irrigators. Included are cash wages, compensation insurance, Social Security, unemployment insurance and other benefits that the employer might pay.

10. Twelve percent annual interest on operating monies is charged on a monthly basis until harvest.

11. Growers from Glenn County participated in furnishing information for appreciating the basic information for this study. Appreciation is expressed to these growers and to others who provided information.

**SAMPLE COSTS TO PRODUCE WHEAT**  
Glenn County - 1990

Labor Rate:           \$9.50 /hr. skilled labor                      Interest Rate:           12%  
                          \$6.50 /hr. field labor                              Yield (lbs/acre):       5,000

Operation	Tractor/ Implement No.	Implement No.	Hours	Cash and Labor Costs per Acre					Total Cost	Your Cost
				Labor Cost/A	Fuel & Repairs	Material Cost	Custom /Rent			
<b>CULTURAL COSTS:</b>										
Stubble disc	1	8	.25	\$2.61	\$6.75				\$9.36	
Chisel	2	7	.13	1.36	3.00				4.36	
Disk offset	2	5	.13	1.36	3.62				4.98	
Triplane	1	14	.20	2.09	4.77				6.86	
Fertilize-inject 100#N	3		.10	1.05	1.17	\$19.25	\$2.00		23.47	
Spiketooth	3	6	.1	1.05	1.56				2.60	
Drill & fertilize, N-P 100#	3	11	.2	2.09	3.09	14.50			19.68	
Seed-130# @ \$11/cwt						14.30			14.30	
Prepare borders	4	15	.1	.52	.47				.99	
Grass weed cntrl(1/2 ac.)-air						9.94	2.75		12.69	
Broadleaf weed cntrl - air						2.88	5.50		8.38	
Topdress-50#N @ \$.28/lb air						14.00	5.95		19.95	
Ditch preparation	1	16	.1	1.05	1.86				2.90	
Irrigate 2X, 1 AF @ \$15/AF		18	.5	3.25		15.00			18.25	
Charges for pick-up use	20	21			2.30				2.30	
Interest on operating capital @ 12%									9.54	
<b>TOTAL CULTURAL COSTS</b>			1.76	\$16.42	\$28.60	\$89.87	\$16.20		\$160.62	
<b>HARVEST COSTS:-</b>										
Combine		13	.33	3.45	8.42				11.86	
<b>TOTAL HARVEST COSTS*</b>			.33	\$3.45	\$8.42				\$11.86	
<b>CASH OVERHEAD:</b>										
Office and business costs									\$6.50	
Land rent: 25% share of 5000 lbs @ \$5.00/cwt									62.50	
Building & Equipment Taxes									1.68	
Insurance									2.01	
<b>TOTAL CASH OVERHEAD COSTS</b>									\$72.70	
<b>TOTAL CASH COSTS</b>									\$245.18	
<b>TOTAL CASH COST PER CWT @ 5000 lbs/acre</b>									\$4.90	
<b>INVESTMENT:</b>										
		Per Acre		Annual Cost						
				Depreciation	Interest @ 12%					
Equipment & buildings		336.80		29.24	18.52				47.76	
<b>TOTAL INVESTMENT COSTS</b>				\$29.24	\$18.52				\$47.76	
<b>TOTAL COSTS PER ACRE</b>									\$292.94	
<b>TOTAL COST PER CWT @ 5000 lbs/acre</b>									\$5.86	

\* Roadside into semi-trucks. Hauling costs paid by contracting company.

MONTHLY SUMMARY OF  
SAMPLE COSTS TO PRODUCE WHEAT

Glenn County - 1990

Operation	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	TOTAL
<b>CULTURAL COSTS:</b>													
Stubble disc	9.4												9
Chisel	4.4												4
Disk offset	5.0												5
Triplane	6.9												7
Fertilize-inject		23.5											23
Spiketooth		2.6											3
Drill & fertilize, N-P		19.7											20
Seed-125# @ \$10/cwt		14.3											14
Prepare borders		1.0											1
Grass weed cntl-1/2			6.3	6.3									13
Broadleaf weed cntrl					8.4								8
Topdress-50#N					20.0								20
Ditch preparation						2.9							3
Irrigate 2X, 1 AF							9.1	9.1					18
Charges for pick-up	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	2
Int.operating capital	.2	.8	.9	.9	1.2	1.2	1.3	1.4	1.6				10
<b>TOTAL CULTURAL COSTS</b>	<b>\$26</b>	<b>\$62</b>	<b>\$14</b>	<b>\$1</b>	<b>\$30</b>	<b>\$4</b>	<b>\$11</b>	<b>\$11</b>	<b>\$2</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$161</b>
<b>HARVEST COSTS:</b>													
Combine									11.9				12
<b>TOTAL HARVEST COSTS</b>									<b>\$12</b>				<b>\$12</b>
<b>CASH OVERHEAD:</b>													
Office and business	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	7
Land rent - 25%											63		63
Bldg./equip. taxes				.8								.8	2
Insurance	2.0												2
<b>TOTAL CASH OVERHEAD</b>	<b>\$3</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$1</b>	<b>\$63</b>	<b>\$1</b>	<b>\$73</b>
<b>TOTAL CASH COSTS</b>	<b>\$28</b>	<b>\$63</b>	<b>\$14</b>	<b>\$3</b>	<b>\$30</b>	<b>\$5</b>	<b>\$11</b>	<b>\$11</b>	<b>\$14</b>	<b>\$1</b>	<b>\$63</b>	<b>\$2</b>	<b>\$245</b>

EQUIPMENT AND BUILDING LIST FOR WHEAT  
Glenn County - 1990

Interest Rate: 11%

Fuel Cost per Gallon \$ .60 diesel  
\$ 1.00 gasoline

ITEM #	DESCRIPTION	NEW COST	ANNUAL USE (ACRES)	COST PER ACRE	LIFE (HRS)	YEARS TO TRADE	----OVERHEAD*----			--- HOURLY COSTS ---		
							DEPRECIATION	INTEREST*	TAR*	FUEL*	REPAIRS*	TOTAL
Tractors:												
1	Crawler-125 HP	\$125,000	1500	\$83.33	12,000	15	\$5.56	\$4.58	100%	\$5.78	\$10.42	\$16.19
2	4WD Wheel-200 HP	100,000	1500	66.67	12,000	10	6.67	3.67	120	9.24	10.00	19.24
3	2WD Wheel-135	55,000	1500	36.67	12,000	10	3.67	2.02	120	6.24	5.50	11.74
4	2WD Wheel-100	45,000	1500	30.00	12,000	10	3.00	1.65	120	4.62	4.50	9.12
5	Offset disc-21'	18,000	1500	12.00	2,500	15	.80	.66	120		8.64	8.64
6	Spiketooth adjust.-30'	8,000	1500	5.33	2,500	15	.36	.29	120		3.84	3.84
7	Chisel (heavy duty)-16'	8,000	1500	5.33	2,500	15	.36	.29	120		3.84	3.84
8	Disc stubble-12'	18,000	1000	18.00	2,000	15	1.20	.99	120		10.80	10.80
9	Field cultivator-32'	10,000	1500	6.67	2,500	15	.44	.37	120		4.80	4.80
10	Ring roller	4,500	1500	3.00	2,500	15	.20	.17	120		2.16	2.16
11	Grain Drill	7,750	450	17.22	2,500	10	1.72	.95	120		3.72	3.72
12	Tool carrier	10,000	1500	6.67	1,000	20	.33	.37	40		4.00	4.00
13	SP Combine-24'	125,000	750	166.67	2,000	10	16.67	9.17	36	3.00	22.50	25.50
14	Triplane-16'	16,000	1500	10.67	2,500	15	.71	.59	120		7.68	7.68
15	Ridger	500	450	1.11	2,500	15	.07	.06	120		.24	.24
16	Ditcher-5'	5,000	1500	3.33	2,500	15	.22	.18	120		2.40	2.40
17	Truck - 2 ton (used)	13,000	1500	8.67		7	1.24	.48				
18	Siphons & irrig. equip.	3,000	1500	2.00		7	.29	.11				
19	Fuel tank, equipment, pum	7,000	1500	4.67		15	.31	.26				
20	Pick-up	16,000	1500	10.67		7	1.52	.59				
21	Pick-up	7,000	1500	4.67		5	.93	.26				
	Shop tools	12,000	1500	8.00		10	.80	.44				
	Buildings	75,000	1500	50.00		30	1.67	2.75				
<b>TOTAL COST</b>		<b>\$688,750</b>		<b>\$561</b>			<b>\$49</b>	<b>\$31</b>				
<b>60% OF NEW COSTS*</b>		<b>\$413,250</b>		<b>\$337</b>			<b>\$29</b>	<b>\$19</b>				

\* DEFINITIONS:

- YEARS TO TRADE----- The projected life of the machine in years adjusted for excessive annual use.
- OVERHEAD ----- Per acre per year.
- DEPRECIATION ----- "COST PER ACRE" divided by "YEARS TO TRADE"
- INTEREST----- ("COST PER ACRE" X "INTEREST RATE") divided by 2 = average interest cost per acre per year.
- TAR----- Total accumulated repairs. The total cost of repairs during the machine's life expressed as a percent of "NEW COST". Calculated from equations based on equipment type and annual use.
- HOURLY COST OF FUEL----- Diesel fuel, oil and lube costs per hour = HP x cost of diesel fuel/gal X 0.0667.  
Gasoline fuel, oil and lube costs per hour = HP x cost of gasoline/gal X 0.0889.
- HOURLY COST OF REPAIRS-- ("NEW COST" X "TAR") divided by ("LIFE IN HOURS").
- 60% OF NEW COSTS ----- Used to reflect a mix of new and used equipment.

COST TO PRODUCE WHEAT AT VARYING PRICES AND YIELDS

	YIELD (lbs./acre)						
	3500	4000	4500	5000	5500	6000	6500
Cultural Costs	161	161	161	161	161	161	161
Harvest Costs	12	12	12	12	12	12	12
Cash Overhead	54	60	66	73	79	85	91
Cash cost/acre	226	233	239	245	251	258	264
Cash cost/cwt	6.47	5.82	5.31	4.90	4.57	4.29	4.06
Investment cost	48	48	48	48	48	48	48
TOTAL COST/ACRE	274	280	287	293	299	305	312
TOTAL COST/CWT	7.83	7.01	6.37	5.86	5.44	5.09	4.80

PER ACRE INCOME ABOVE CASH COSTS AT VARYING PRICES AND YIELDS

Dollars per CWT	YIELD (lbs./acre)						
	3500	4000	4500	5000	5500	6000	6500
4.00	-78	-63	-48	-33	-18	-3	12
4.50	-65	-48	-31	-14	3	20	37
5.00	-51	-33	-14	5	24	42	61
5.50	-38	-18	3	24	44	65	85
6.00	-25	-3	20	42	65	87	110
6.50	-12	12	37	61	85	110	134
7.00	1	27	54	80	106	132	159

PER ACRE INCOME ABOVE ALL COSTS AT VARYING PRICES AND YIELDS

Dollars per CWT	YIELD (lbs./acre)						
	3500	4000	4500	5000	5500	6000	6500
4.00	-125	-110	-95	-80	-65	-50	-35
4.50	-112	-95	-79	-62	-45	-28	-11
5.00	-99	-80	-62	-43	-24	-5	13
5.50	-86	-65	-45	-24	-4	17	38
6.00	-73	-50	-28	-5	17	40	62
6.50	-60	-35	-11	13	38	62	86
7.00	-47	-20	6	32	58	85	111

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