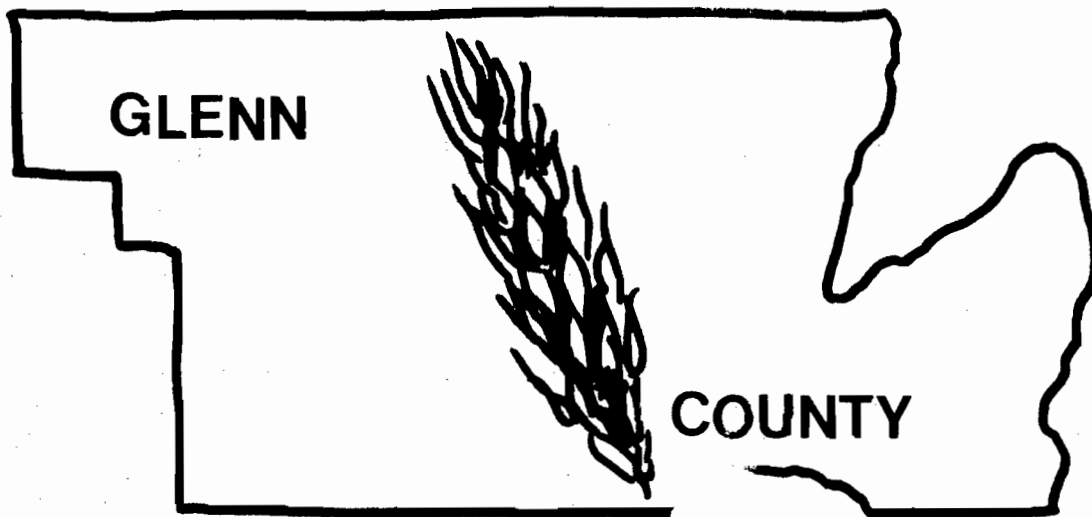


*Irrigated*

*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 450 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 system; however, other methods of irrigation such as underground pipe and valves, open ditch and gates are also used in Glenn County.

This cost study is figured on a tenant-landowner basis with the landlord receiving 1/4 of the gross income from the wheat with the tenant paying all cash production costs.

2. In allocating the equipment cost per acre the following calculations were made: (a) "Original Cost" of equipment is the new cost including sales tax. (b) "Depreciation" is the new cost per acre divided by the years of life. The new cost per acre is figured as the new cost per acre divided by the acres the equipment will be used on. (c) "Interest" on investment is figured as one-half of the new cost per acre multiplied by 13%. One-half of the new cost is the average value of the equipment during its useful life. (e) 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.

3. Miscellaneous expenses have been found to be about 10% of the total cultural and harvest costs. They include such costs as preparing roadways, general weed control, office, bookkeeping, liability insurance, etc.

4. Labor costs are based on a \$7.25 hourly rate for skilled labor and \$5.50 hourly rate for irrigators. Included are cash wages, compensation insurance, Social Security, Unemployment Insurance, and other benefits that the employer might pay.

5. The 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 decisions.

6. On the first page of the study 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 wheat.

7. Several Glenn County irrigated wheat growers furnished the basic information for this study. Appreciation is expressed to these growers.

**SAMPLE COSTS TO PRODUCE WHEAT**

Glenn County - January 1985

Labor rate \$ 7.25 /hr. tractor operator  
                   5.50 /hr. irrigators  
 Yield 5000 lbs./acre  
 Sale roadside \$ 5.25 /cwt

| Operation                                     | Hours<br>per Acre | Cash and Labor Costs per Acre |              |                         | Total<br>Cost  | Your<br>Cost  |
|---|-------------------|-------------------------------|--------------|-------------------------|----------------|---------------|
|   |                   | Labor                         | Fuel         | Materials               |                |               |
|   |                   | & Repairs                     | Kind and     | Quantity                |                |               |
| <b>Cultural costs:</b>                        |                   |                               |              |                         |                |               |
| Stubble disk 1x                               | .33               | 2.42                          | 9.17         |                         |                | 11.58         |
| Chisel 1x                                     | .13               | .91                           | 2.84         |                         |                | 3.74          |
| Disc offset 1x                                | .13               | .91                           | 3.44         |                         |                | 4.34          |
| Triplane                                      | .10               | .73                           | 2.85         |                         |                | 3.57          |
| Fertilize-inject N                            | .13               | .91                           | 1.57         | 100 Lbs.N @ \$22.25/cwt | 22.25          | 24.72         |
|   |                   |                               |              | Rent rig                | 2.00           | 2.00          |
| Drill & fertilize                             | .20               | 1.45                          | 3.24         | 125 lbs @ \$10/cwt      | 12.50          | 17.19         |
|   |                   |                               |              | N-P, 100 lbs.           | 14.50          | 14.50         |
| Prepare borders                               | .02               | .15                           | .21          |                         |                | .36           |
| Weed control-grass<br>(1/2 acreage)           |                   |                               |              | \$16.00 per acre        | 8.04           | 8.04          |
|   |                   |                               |              | Aerial application      | 2.50           | 2.50          |
| Broadleaf weed control                        |                   |                               |              | Materials               | 3.14           | 3.14          |
|   |                   |                               |              | Aerial application      | 5.00           | 5.00          |
| Topdress                                      |                   |                               |              | 50 lbs N                | 15.65          | 15.65         |
|   |                   |                               |              | Aerial application      | 4.50           | 4.50          |
| Ditch preparation                             | .10               | .73                           | 1.28         |                         |                | 2.00          |
| Irrigate 2x                                   | 1.00              | 5.50                          |              | 1 acre feet @ \$12/AF   | 12.00          | 17.50         |
| Misc. (downtime, etc.)                        | .25               | 2.50                          |              |                         |                | 2.50          |
| Interest on operating capital @ 12% for 6 mo. |                   |                               |              |                         |                | 10.00         |
| <b>TOTAL CULTURAL COSTS</b>                   | <b>2.38</b>       | <b>16.18</b>                  | <b>24.58</b> |                         | <b>102.00</b>  | <b>152.84</b> |
| <b>Harvest costs:</b>                         |                   |                               |              |                         |                |               |
| Combine                                       | .25               | 1.81                          | 8.37         |                         |                | 10.18         |
| <b>Cash overhead:</b>                         |                   |                               |              |                         |                |               |
| Office, telephone, etc.                       |                   |                               |              |                         |                | 16.30         |
| Property taxes - 1%                           |                   |                               |              |                         |                | 1.63          |
| Insurance - \$.55 per \$100                   |                   |                               |              |                         |                | .90           |
| Rent - 25%                                    |                   |                               |              | 5000 lbs @ \$ 5.25      | 262.50         | 65.63         |
| <b>TOTAL CASH OVERHEAD COSTS</b>              |                   |                               |              |                         |                | <b>84.45</b>  |
| <b>TOTAL CASH COSTS</b>                       |                   |                               |              |                         |                | <b>247.47</b> |
| <b>Investment</b>                             |                   |                               |              |                         |                |               |
|   |                   |                               |              | Annual Cost             |                |               |
|   |                   |                               |              | Depreciation            | Interest @ 12% |               |
| Equipment & buildings                         |                   |                               |              | 24.75                   | 18.87          | 43.62         |
| <b>TOTAL CASH COSTS PER ACRE</b>              |                   |                               |              |                         |                | <b>291.09</b> |
| Cost per cwt @ 50 cwt yield                   |                   |                               |              |                         |                | 5.82          |

## wheat equipment list

## EQUIPMENT AND BUILDING LIST

Interest on capital is 13%

| ITEM                        | ORIGINAL COST | ANNUAL USE (ACRES) | LIFE (YEARS) | ---ANNUAL DEPREC- ATION | COST--- INTEREST AT 12% | COST/ HOUR |
|-----------------------------|---------------|--------------------|--------------|-------------------------|-------------------------|------------|
| <b>Tractors</b>             |               |                    |              |                         |                         |            |
| 125HP track diesel          | 125000        | 1500               | 15           | 5.56                    | 5.42                    | 18.86      |
| 180-200 HP 4WD diesel       | 100000        | 1500               | 10           | 6.67                    | 4.33                    | 19.20      |
| 120 HP wheel diesel         | 55000         | 1500               | 10           | 3.67                    | 2.38                    | 12.52      |
| 100 HP wheel diesel         | 45000         | 1500               | 10           | 3.00                    | 1.95                    | 10.35      |
| Disk, stubble, 12'          | 18000         | 1000               | 15           | 1.20                    | 1.17                    | 8.64       |
| Disk, offset, 21'           | 18000         | 1500               | 15           | .80                     | .78                     | 8.64       |
| Chisel (heavy duty) 16'     | 8000          | 1500               | 15           | .36                     | .35                     | 3.84       |
| Field cultivator, 32'       | 10000         | 1500               | 15           | .44                     | .43                     | 4.80       |
| Spiketooth adjust.-30 ft.   | 8000          | 1500               | 15           | .36                     | .35                     | 3.84       |
| Ring Roller                 | 4500          | 1000               | 15           | .30                     | .29                     | 2.16       |
| Grain Drill                 | 6800          | 450                | 10           | 1.51                    | .98                     | 5.67       |
| Triplane - 16 ft.           | 16000         | 1500               | 15           | .71                     | .69                     | 9.60       |
| Ridger                      | 500           | 450                | 15           | .07                     | .07                     | .30        |
| Ditcher - 5 ft.             | 5000          | 1500               | 20           | .17                     | .22                     | 2.40       |
| Combine - 24 ft, SP         | 100000        | 1000               | 10           | 10.00                   | 6.50                    | 33.47      |
| Tool carrier                | 10000         | 1500               | 20           | .33                     | .43                     |            |
| Truck - 2 ton               | 26000         | 1500               | 15           | 1.16                    | 1.13                    |            |
| 2 pickups                   | 20000         | 1500               | 5            | 2.67                    | .87                     |            |
| Siphons & irrigation equip. | 3000          | 1000               | 7            | .43                     | .20                     |            |
| Shop tools                  | 10000         | 1500               | 15           | .44                     | .43                     |            |
| Buildings                   | 50000         | 1500               | 30           | 1.11                    | 2.17                    |            |
| Fuel tank, equipment, pump  | 7000          | 1500               | 15           | .31                     | .30                     |            |
| <b>TOTAL COST</b>           | <b>645800</b> |                    |              | <b>41.26</b>            | <b>31.44</b>            |            |
| <b>60% OF NEW COSTS</b>     | <b>387480</b> |                    |              | <b>24.75</b>            | <b>18.87</b>            |            |

## Cost of Producing Wheat at Varying Yields

|                        | POUNDS PER ACRE |               |               |               |               |
|------------------------|-----------------|---------------|---------------|---------------|---------------|
|                        | 4000            | 4500          | 5000          | 5500          | 6000          |
| Cultural costs         | 152.84          | 152.84        | 152.84        | 152.84        | 152.84        |
| Harvest cost           | 10.18           | 10.18         | 10.18         | 10.18         | 10.18         |
| Cash overhead          | 71.33           | 77.89         | 84.45         | 91.02         | 97.58         |
| <b>Total cash cost</b> | <b>234.35</b>   | <b>240.91</b> | <b>247.47</b> | <b>254.04</b> | <b>260.60</b> |
| Investment cost        | 43.62           | 43.62         | 43.62         | 43.62         | 43.62         |
| <b>Total cost</b>      | <b>277.97</b>   | <b>284.53</b> | <b>291.09</b> | <b>297.66</b> | <b>304.22</b> |

## Income Above Cash Costs at Varying Yields & Prices

| \$/CWT | POUNDS PER ACRE |        |       |        |        |
|--------|-----------------|--------|-------|--------|--------|
|        | 4000            | 4500   | 5000  | 5500   | 6000   |
| 4.75   | -44.35          | -27.16 | -9.97 | 7.21   | 24.40  |
| 5.25   | -24.35          | -4.66  | 15.03 | 34.71  | 54.40  |
| 5.75   | -4.35           | 17.84  | 40.03 | 62.21  | 84.40  |
| 6.25   | 15.65           | 40.34  | 65.03 | 89.71  | 114.40 |
| 6.75   | 35.65           | 62.84  | 90.03 | 117.21 | 144.40 |

## Income Above Total Costs at Varying Yields & Prices

| \$/CWT | POUNDS PER ACRE |        |        |        |        |
|--------|-----------------|--------|--------|--------|--------|
|        | 4000            | 4500   | 5000   | 5500   | 6000   |
| 4.75   | -87.97          | -70.78 | -53.59 | -36.41 | -19.22 |
| 5.25   | -67.97          | -48.28 | -28.59 | -8.91  | 10.78  |
| 5.75   | -47.97          | -25.78 | -3.59  | 18.59  | 40.78  |
| 6.25   | -27.97          | -3.28  | 21.41  | 46.09  | 70.78  |
| 6.75   | -7.97           | 19.22  | 46.41  | 73.59  | 100.78 |

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