

**Estimating 2009 Costs of Production  
 Rice, Silt Loam Soils, Stale Seedbed,  
 Eastern Arkansas**

AG-1211-11-08

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| ITEM                            | UNIT   | PRICE   | QUANTITY | AMOUNT        | YOUR FARM |
|---------------------------------|--------|---------|----------|---------------|-----------|
|                                 |        | dollars |          | dollars       |           |
| <b>DIRECT EXPENSES</b>          |        |         |          |               |           |
| <b>FERTILIZERS</b>              |        |         |          |               |           |
| 0-60-90                         | acre   | 147.51  | 1.0000   | 147.51        | _____     |
| Urea, Solid (46% N)             | lb.    | 0.30    | 333.0000 | 99.90         | _____     |
| Agrotain                        | lburea | 0.02    | 233.0000 | 5.59          | _____     |
| <b>FUNGICIDES</b>               |        |         |          |               |           |
| Foliar Fungicide                | acre   | 26.94   | 0.3000   | 8.08          | _____     |
| <b>HERBICIDES</b>               |        |         |          |               |           |
| Glyphosate Plus                 | pt     | 4.82    | 2.0000   | 9.64          | _____     |
| Command 3ME                     | pt     | 12.93   | 0.8000   | 10.34         | _____     |
| Propanil                        | pt     | 3.75    | 7.6000   | 28.50         | _____     |
| Permit 75 DF                    | oz     | 18.07   | 1.0000   | 18.07         | _____     |
| Facet 75DF                      | lb     | 52.09   | 0.2500   | 13.02         | _____     |
| Grandstand R                    | pt     | 11.30   | 0.0670   | 0.76          | _____     |
| <b>INSECTICIDES</b>             |        |         |          |               |           |
| Insecticide-StinkBug            | acre   | 4.83    | 0.1000   | 0.48          | _____     |
| <b>IRRIGATION SUPPLIES</b>      |        |         |          |               |           |
| Levee Gates                     | acre   | 1.95    | 1.0000   | 1.95          | _____     |
| <b>CROP SEED</b>                |        |         |          |               |           |
| Rice Conv.                      | lbseed | 0.27    | 92.0000  | 24.84         | _____     |
| Release Seed Trt                | lbseed | 0.03    | 92.0000  | 3.58          | _____     |
| Fungicide Seed Trt              | lbseed | 0.06    | 92.0000  | 5.87          | _____     |
| <b>CUSTOM HIRE</b>              |        |         |          |               |           |
| Cstm Ap Grd. Herb               | acre   | 6.00    | 2.0000   | 12.00         | _____     |
| Cstm Ap Grd Fert                | acre   | 6.00    | 1.0000   | 6.00          | _____     |
| Survey Levees                   | acre   | 7.50    | 1.0000   | 7.50          | _____     |
| Cstm Ap Air Fert                | lb     | 0.07    | 333.0000 | 24.98         | _____     |
| Cstm Ap Air Herb                | acre   | 7.50    | 1.0000   | 7.50          | _____     |
| Cstm Spray Levee,ATV            | acre   | 6.00    | 1.0000   | 6.00          | _____     |
| Cstm Ap Air Fung                | acre   | 7.50    | 0.3000   | 2.25          | _____     |
| Cstm Ap Air Insect              | acre   | 7.50    | 0.1000   | 0.75          | _____     |
| Haul Rice                       | bu     | 0.22    | 160.0000 | 35.20         | _____     |
| <b>GIN/DRY</b>                  |        |         |          |               |           |
| Dry Rice                        | bu     | 0.35    | 160.0000 | 56.00         | _____     |
| Rice Checkoff                   | bu     | 0.01    | 160.0000 | 2.16          | _____     |
| <b>OPERATOR LABOR</b>           |        |         |          |               |           |
| Tractors                        | hour   | 9.92    | 0.8719   | 8.65          | _____     |
| Harvesters                      | hour   | 9.92    | 0.2538   | 2.52          | _____     |
| <b>IRRIGATION LABOR</b>         |        |         |          |               |           |
| Flood Irr - Rice                | hour   | 8.60    | 0.4525   | 3.89          | _____     |
| <b>HAND LABOR</b>               |        |         |          |               |           |
| Implements                      | hour   | 8.60    | 0.1732   | 1.50          | _____     |
| <b>DIESEL FUEL</b>              |        |         |          |               |           |
| Tractors                        | gal    | 2.60    | 8.3984   | 21.83         | _____     |
| Harvesters                      | gal    | 2.60    | 3.5919   | 9.34          | _____     |
| Flood Irr - Rice                | gal    | 2.60    | 30.0001  | 78.00         | _____     |
| <b>REPAIR &amp; MAINTENANCE</b> |        |         |          |               |           |
| Implements                      | acre   | 6.56    | 1.0000   | 6.56          | _____     |
| Tractors                        | acre   | 3.20    | 1.0000   | 3.20          | _____     |
| Harvesters                      | acre   | 5.15    | 1.0000   | 5.15          | _____     |
| Flood Irr - Rice                | ac-in  | 0.17    | 30.0000  | 5.17          | _____     |
| INTEREST ON OP. CAP.            | acre   | 20.81   | 1.0000   | 20.81         | _____     |
| <b>TOTAL DIRECT EXPENSES</b>    |        |         |          | <b>705.08</b> | _____     |
| <b>FIXED EXPENSES</b>           |        |         |          |               |           |
| Implements                      | acre   | 16.58   | 1.0000   | 16.58         | _____     |
| Tractors                        | acre   | 23.41   | 1.0000   | 23.41         | _____     |
| Harvesters                      | acre   | 23.39   | 1.0000   | 23.39         | _____     |
| Flood Irr - Rice                | each   | 3058.64 | 0.0083   | 25.39         | _____     |
| <b>TOTAL FIXED EXPENSES</b>     |        |         |          | <b>88.77</b>  | _____     |
| <b>TOTAL SPECIFIED EXPENSES</b> |        |         |          | <b>793.85</b> | _____     |

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**Table 2. Estimated resource use and costs for field operations, per acre, Rice, Silt Loam Soils, Stale Seedbed, Eastern Arkansas, 2009**

| OPERATION/<br>OPERATING INPUT | SIZE/<br>UNIT | POWER UNIT<br>SIZE | PERF<br>RATE | TIMES<br>OVER | MTH | POWER UNIT COST   |       | EQUIPMENT COST |       | ALLOC   | LABOR | OPERATING/DURABLE INPUT |        |        | TOTAL<br>COST |        |
|-------------------------------|---------------|--------------------|--------------|---------------|-----|-------------------|-------|----------------|-------|---------|-------|-------------------------|--------|--------|---------------|--------|
|                               |               |                    |              |               |     | DIRECT            | FIXED | DIRECT         | FIXED | HOURS   | COST  | AMOUNT                  | PRICE  | COST   |               |        |
|                               |               |                    |              |               |     | -----dollars----- |       |                |       | dollars |       | -----dollars-----       |        |        |               |        |
| Disk Harrow                   | 28'           | MFWD 225           | 0.070        | 2.00          | Oct | 4.86              | 4.70  | 1.30           | 3.23  | 0.14    | 1.39  |                         |        |        |               | 15.48  |
| Land Plane                    | 50'x16'       | MFWD 190           | 0.151        | 2.00          | Oct | 8.83              | 8.21  | 0.45           | 1.41  | 0.30    | 3.01  |                         |        |        |               | 21.91  |
| Field Cultivate Fld           | 32'           | MFWD 190           | 0.046        | 1.00          | Oct | 1.36              | 1.26  | 0.32           | 1.61  | 0.04    | 0.46  |                         |        |        |               | 5.01   |
| Cstm Ap Grd. Herb             | acre          |                    |              | 1.00          | Apr |                   |       |                |       |         |       | 1.0000                  | 6.00   | 6.00   |               | 6.00   |
| Glyphosate Plus               | pt            |                    |              |               |     |                   |       |                |       |         |       | 2.0000                  | 4.82   | 9.64   |               | 9.64   |
| Cstm Ap Grd Fert              | acre          |                    |              | 1.00          | Apr |                   |       |                |       |         |       | 1.0000                  | 6.00   | 6.00   |               | 6.00   |
| 0-60-90                       | acre          |                    |              |               |     |                   |       |                |       |         |       | 1.0000                  | 147.51 | 147.51 |               | 147.51 |
| NT Grain Drill                | 20'           | MFWD 170           | 0.098        | 1.00          | Apr | 2.59              | 2.62  | 1.76           | 3.99  | 0.19    | 1.81  |                         |        |        |               | 12.77  |
| Rice Conv.                    | lbseed        |                    |              |               |     |                   |       |                |       |         |       | 83.0000                 | 0.27   | 22.41  |               | 22.41  |
| Seed Trt                      | lbseed        |                    |              |               |     |                   |       |                |       |         |       | 83.0000                 | 0.09   | 8.53   |               | 8.53   |
| Cstm Ap Grd. Herb             | acre          |                    |              | 1.00          | Apr |                   |       |                |       |         |       | 1.0000                  | 6.00   | 6.00   |               | 6.00   |
| Command 3ME                   | pt            |                    |              |               |     |                   |       |                |       |         |       | 0.8000                  | 12.93  | 10.34  |               | 10.34  |
| Survey Levees                 | acre          |                    |              | 1.00          | Apr |                   |       |                |       |         |       | 1.0000                  | 7.50   | 7.50   |               | 7.50   |
| Pull Levees                   | 8 blade       | MFWD 190           | 0.025        | 2.00          | Apr | 1.45              | 1.35  | 0.06           | 0.37  | 0.05    | 0.50  |                         |        |        |               | 3.73   |
| Levee Seeder                  | 8 blade       | MFWD 190           | 0.025        | 1.00          | Apr | 0.73              | 0.68  | 0.04           | 0.24  | 0.05    | 0.47  |                         |        |        |               | 2.16   |
| Rice Conv.                    | lbseed        |                    |              |               |     |                   |       |                |       |         |       | 9.0000                  | 0.27   | 2.43   |               | 2.43   |
| Release Seed Trt              | lbseed        |                    |              |               |     |                   |       |                |       |         |       | 9.0000                  | 0.03   | 0.35   |               | 0.35   |
| Fungicide Seed Trt            | lbseed        |                    |              |               |     |                   |       |                |       |         |       | 9.0000                  | 0.06   | 0.57   |               | 0.57   |
| Blade-Box                     | 6'-7'         | 2WD 130            | 0.020        | 1.00          | Apr | 0.40              | 0.34  | 0.01           | 0.01  | 0.02    | 0.20  |                         |        |        |               | 0.96   |
| Gate Installer                |               | MFWD 105           | 0.025        | 1.00          | Apr | 0.39              | 0.25  | 0.13           | 0.51  | 0.05    | 0.47  |                         |        |        |               | 1.75   |
| Levee Gates                   | acre          |                    |              |               |     |                   |       |                |       |         |       | 1.0000                  | 1.95   | 1.95   |               | 1.95   |
| Cstm Ap Air Fert              | lb            |                    |              | 1.00          | May |                   |       |                |       |         |       | 233.0000                | 0.07   | 17.47  |               | 17.47  |
| Urea, Solid (46% N)           | lb.           |                    |              |               |     |                   |       |                |       |         |       | 233.0000                | 0.30   | 69.90  |               | 69.90  |
| Agrotain                      | lburea        |                    |              |               |     |                   |       |                |       |         |       | 233.0000                | 0.02   | 5.59   |               | 5.59   |
| Cstm Ap Air Herb              | acre          |                    |              | 1.00          | May |                   |       |                |       |         |       | 1.0000                  | 7.50   | 7.50   |               | 7.50   |
| Propanil                      | pt            |                    |              |               |     |                   |       |                |       |         |       | 6.0000                  | 3.75   | 22.50  |               | 22.50  |
| Permit 75 DF                  | oz            |                    |              |               |     |                   |       |                |       |         |       | 1.0000                  | 18.07  | 18.07  |               | 18.07  |
| Facet 75DF                    | lb            |                    |              |               |     |                   |       |                |       |         |       | 0.2500                  | 52.09  | 13.02  |               | 13.02  |
| Cstm Spray Levee,ATV          | acre          |                    |              | 1.00          | Jul |                   |       |                |       |         |       | 1.0000                  | 6.00   | 6.00   |               | 6.00   |
| Grandstand R                  | pt            |                    |              |               |     |                   |       |                |       |         |       | 0.0670                  | 11.30  | 0.76   |               | 0.76   |
| Propanil                      | pt            |                    |              |               |     |                   |       |                |       |         |       | 1.6000                  | 3.75   | 6.00   |               | 6.00   |
| Cstm Ap Air Fert              | lb            |                    |              | 1.00          | Jul |                   |       |                |       |         |       | 100.0000                | 0.07   | 7.50   |               | 7.50   |
| Urea, Solid (46% N)           | lb.           |                    |              |               |     |                   |       |                |       |         |       | 100.0000                | 0.30   | 30.00  |               | 30.00  |
| Cstm Ap Air Fung              | acre          |                    |              | 1.00          | Aug |                   |       |                |       |         |       | 0.3000                  | 7.50   | 2.25   |               | 2.25   |
| Foliar Fungicide              | acre          |                    |              |               |     |                   |       |                |       |         |       | 0.3000                  | 26.94  | 8.08   |               | 8.08   |
| Cstm Ap Air Insect            | acre          |                    |              | 1.00          | Aug |                   |       |                |       |         |       | 0.1000                  | 7.50   | 0.75   |               | 0.75   |
| Insecticide-StinkBug          | acre          |                    |              |               |     |                   |       |                |       |         |       | 0.1000                  | 4.83   | 0.48   |               | 0.48   |
| Remove Gates                  |               | MFWD 105           | 0.025        | 1.00          | Aug | 0.39              | 0.25  | 0.13           | 0.51  | 0.05    | 0.47  |                         |        |        |               | 1.75   |
| Header - Rice                 | 25' Rigid     | 275hp              | 0.253        | 1.00          | Sep | 14.49             | 23.39 | 1.87           | 3.30  | 0.25    | 2.52  |                         |        |        |               | 45.57  |
| Rice Grain Cart               | 700 Bu        | MFWD 190           | 0.063        | 1.00          | Sep | 1.84              | 1.72  | 0.40           | 0.84  | 0.06    | 0.63  |                         |        |        |               | 5.43   |
| Dry Rice                      | bu            |                    |              | 1.00          | Sep |                   |       |                |       |         |       | 160.0000                | 0.35   | 56.00  |               | 56.00  |
| Haul Rice                     | bu            |                    |              |               |     |                   |       |                |       |         |       | 160.0000                | 0.22   | 35.20  |               | 35.20  |
| Rice Checkoff                 | bu            |                    |              |               |     |                   |       |                |       |         |       | 160.0000                | 0.01   | 2.16   |               | 2.16   |
| Tear Down Levees              | 8 blade       | MFWD 190           | 0.025        | 3.00          | Oct | 2.19              | 2.03  | 0.09           | 0.56  | 0.07    | 0.74  |                         |        |        |               | 5.61   |
| Flood Irr - Rice              | each          |                    |              | 1.00          | May |                   |       |                | 25.39 |         |       | 0.0083                  |        |        |               | 25.39  |
| Apply Water                   | ac-in         |                    |              |               |     |                   |       |                | 83.17 | 0.45    | 3.89  | 30.0000                 |        |        |               | 87.06  |
| TOTALS                        |               |                    |              |               |     | 39.52             | 46.80 | 89.73          | 41.97 | 1.75    | 16.56 |                         |        | 538.46 |               | 773.04 |
| INTEREST ON OPERATING CAPITAL |               |                    |              |               |     |                   |       |                |       |         |       |                         |        |        |               | 20.81  |
| TOTAL SPECIFIED COST          |               |                    |              |               |     |                   |       |                |       |         |       |                         |        |        |               | 793.85 |

Information presented in this document is prepared solely as a general guide and is not intended to recognize or predict the costs and returns from any one particular farm operation. The mention of any commercial product in this analysis does not imply its endorsement by the University of Arkansas Cooperative Extension Service over other products not named, nor does the omission imply that they are not satisfactory. This budget does not include costs for land, overhead, or management.

**Table 3. Break-even Yields (BEY) Required to cover Direct Expenses and Net Returns above Direct Expenses at Price/Yield Combinations for Select Land Tenure Arrangements, per acre.**

**Rice, Silt Loam Soils, Stale Seedbed, Eastern Arkansas, 2009**

| Farm Owner       |  |      |      |      |      |      |      |
|------------------|--|------|------|------|------|------|------|
| BEY<br>(bu/acre) | Crop Price (\$/bu)                         |      |      |      |      |      |      |
|                  | 5.65                                       | 5.95 | 6.25 | 6.55 | 6.84 | 7.14 | 7.44 |
|                  | Net Returns above Variable Costs (\$/acre) |      |      |      |      |      |      |
| 89               | -160                                       | -133 | -106 | -80  | -53  | -27  | 0    |
| 93               | -139                                       | -111 | -83  | -56  | -28  | 0    | 28   |
| 98               | -116                                       | -87  | -58  | -29  | 0    | 29   | 58   |
| 103              | -92  | -61  | -31  | 0    | 31   | 61   | 92   |
| 108              | -64  | -32  | 0    | 32   | 64   | 97   | 129  |
| 114              | -34  | 0    | 34   | 68   | 102  | 136  | 170  |
| 121              | 0  | 36   | 72   | 108  | 144  | 180  | 216  |

Farm Owner is assumed to have 100% Equity in Land

| Tenant 75-25 Crop-Share |  |      |      |      |      |      |      |
|-------------------------|--|------|------|------|------|------|------|
| BEY<br>(bu/acre)        | Crop Price (\$/bu)                         |      |      |      |      |      |      |
|                         | 5.65                                       | 5.95 | 6.25 | 6.55 | 6.84 | 7.14 | 7.44 |
|                         | Net Returns above Variable Costs (\$/acre) |      |      |      |      |      |      |
| 120                     | -161                                       | -134 | -108 | -81  | -54  | -27  | 0    |
| 126                     | -141                                       | -112 | -84  | -56  | -28  | 0    | 28   |
| 132                     | -118                                       | -88  | -59  | -29  | 0    | 29   | 59   |
| 139                     | -93  | -62  | -31  | 0    | 31   | 62   | 93   |
| 146                     | -65  | -33  | 0    | 33   | 65   | 98   | 130  |
| 154                     | -34  | 0    | 34   | 69   | 103  | 138  | 172  |
| 163                     | 0  | 36   | 73   | 109  | 146  | 182  | 219  |

Landowner Receives 25% of the Crop.

Tenant pays 100% of Hauling Crop to Grain Elevator

Landowner Pays Drying Expenses on 25% of the Crop

**Tenant 50-50 Cost-Share**

| Tenant 50-50 Cost-Share |  |      |      |      |      |      |      |
|-------------------------|--|------|------|------|------|------|------|
| BEY<br>(bu/acre)        | Crop Price (\$/bu)                         |      |      |      |      |      |      |
|                         | 5.65                                       | 5.95 | 6.25 | 6.55 | 6.84 | 7.14 | 7.44 |
|                         | Net Returns above Variable Costs (\$/acre) |      |      |      |      |      |      |
| 94                      | -84  | -70  | -56  | -42  | -28  | -14  | 0    |
| 99                      | -73  | -59  | -44  | -29  | -15  | 0    | 15   |
| 103                     | -62  | -46  | -31  | -15  | 0    | 15   | 31   |
| 109                     | -49  | -32  | -16  | 0    | 16   | 32   | 49   |
| 115                     | -34  | -17  | 0    | 17   | 34   | 51   | 68   |
| 121                     | -18  | 0    | 18   | 36   | 54   | 72   | 90   |
| 129                     | 0  | 19   | 38   | 57   | 77   | 96   | 115  |

Landowner Receives 50% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 50% of the Crop.

Landowner Pays 100% of Irrigation Expenses (Except Labor).

Landowner Pays 50% of:

Seed, Fertilizer, Herbicides, Fungicides, Insecticides, and Aerial Application Costs.

**Tenant 80-20 Crop-Share**

| Tenant 80-20 Crop-Share |  |      |      |      |      |      |      |
|-------------------------|--|------|------|------|------|------|------|
| BEY<br>(bu/acre)        | Crop Price (\$/bu)                         |      |      |      |      |      |      |
|                         | 5.65                                       | 5.95 | 6.25 | 6.55 | 6.84 | 7.14 | 7.44 |
|                         | Net Returns above Variable Costs (\$/acre) |      |      |      |      |      |      |
| 113                     | -161                                       | -134 | -107 | -80  | -54  | -27  | 0    |
| 118                     | -140                                       | -112 | -84  | -56  | -28  | 0    | 28   |
| 123                     | -117                                       | -88  | -59  | -29  | 0    | 29   | 59   |
| 130                     | -93  | -62  | -31  | 0    | 31   | 62   | 93   |
| 136                     | -65  | -32  | 0    | 32   | 65   | 97   | 130  |
| 144                     | -34  | 0    | 34   | 69   | 103  | 137  | 171  |
| 153                     | 0  | 36   | 73   | 109  | 145  | 182  | 218  |

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.