



UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE
Cooperative Extension Service

Estimating 2008 Costs of Production
Rice, Silt Loam Soils, Eastern Arkansas

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ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
GIN/DRY					
Rice Checkoff	bu	0.01	160.0000	2.16	_____
Dry Rice	bu	0.30	160.0000	48.00	_____
FERTILIZERS					
0-60-90	acre	52.59	1.0000	52.59	_____
Urea, Solid (46% N)	lb	0.20	333.0000	66.60	_____
FUNGICIDES					
Foliar Fungicide	acre	22.14	0.3000	6.64	_____
HERBICIDES					
Command 3ME	pt	11.22	0.8000	8.98	_____
Propanil 4E	pt	2.64	6.0000	15.84	_____
Permit 75	oz	16.36	1.0000	16.36	_____
Facet 75DF	lb	45.69	0.2500	11.42	_____
2,4-D Amine	pt	1.79	0.2000	0.36	_____
INSECTICIDES					
Insecticide-StinkBug	acre	4.98	0.1000	0.50	_____
IRRIGATION SUPPLIES					
Levee Gates	acre	1.50	1.0000	1.50	_____
CROP SEED					
Release - Seed Trt	lbseed	0.06	84.0000	5.12	_____
Fungicide Seed Trt	lbseed	0.04	84.0000	3.36	_____
Rice Seed	lb	0.21	84.0000	17.64	_____
CUSTOM HIRE					
Cstm Ap Grd Fert	acre	4.92	1.0000	4.92	_____
Cstm Ap Grd. Herb	acre	5.02	1.0000	5.02	_____
Survey Levee	acre	4.00	1.0000	4.00	_____
Cstm Ap Air Fert	lb	0.05	333.0000	18.65	_____
Cstm Ap Air Herb	acre	5.95	1.0000	5.95	_____
Cstm Spray Levee,ATV	acre	4.00	1.0000	4.00	_____
Cstm Ap Air Fung	acre	6.25	0.3000	1.88	_____
Cstm Ap Air Insect	acre	5.00	0.1000	0.50	_____
Cstm Haul Rice	bu	0.15	160.0000	24.00	_____
OPERATOR LABOR					
Tractors	hour	9.45	0.8188	7.75	_____
Harvesters	hour	9.45	0.2538	2.40	_____
IRRIGATION LABOR					
Flood Irr - Rice	hour	8.19	0.4525	3.71	_____
HAND LABOR					
Implements	hour	8.19	0.1192	0.97	_____
DIESEL FUEL					
Tractors	gal	2.33	7.9360	18.48	_____
Harvesters	gal	2.33	3.5919	8.37	_____
Flood Irr - Rice	gal	2.33	30.0001	69.90	_____
REPAIR & MAINTENANCE					
Implements	Acre	5.43	1.0000	5.43	_____
Tractors	Acre	3.04	1.0000	3.04	_____
Harvesters	Acre	5.03	1.0000	5.03	_____
Flood Irr - Rice	ac-in	0.16	30.0000	4.84	_____
INTEREST ON OP. CAP.	Acre	22.77	1.0000	22.77	_____
TOTAL DIRECT EXPENSES				478.69	_____
FIXED EXPENSES					
Implements	Acre	14.88	1.0000	14.88	_____
Tractors	Acre	23.16	1.0000	23.16	_____
Harvesters	Acre	23.80	1.0000	23.80	_____
Flood Irr - Rice	each	2993.11	0.0083	24.84	_____
TOTAL FIXED EXPENSES				86.68	_____
TOTAL SPECIFIED EXPENSES				565.37	_____

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Table 2. Estimated resource use and costs for field operations, per acre, Rice, Silt Loam Soils, Eastern Arkansas, 2008

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC HOURS	LABOR COST	OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED			AMOUNT	PRICE	COST		
						dollars				dollars		dollars				
Disk Harrow	28'	MFWD 225	0.070	2.00	Apr	4.41	4.72	1.17	3.06	0.14	1.33					14.69
Land Plane	50'x16'	MFWD 190	0.151	2.00	Apr	8.04	8.63	0.43	1.40	0.30	2.87					21.37
Cstm Ap Grd Fert	acre			1.00	Apr									1.0000	4.92	4.92
0-60-90	acre													1.0000	52.59	52.59
Field Cultivate Fld	32'	MFWD 190	0.046	1.00	Apr	1.23	1.33	0.33	1.72	0.04	0.44					5.05
Grain Drill	20'	MFWD 170	0.094	1.00	Apr	2.25	2.55	1.14	2.72	0.18	1.66					10.32
Release - Seed Trt	lbseed													75.0000	0.06	4.58
Fungicide Seed Trt	lbseed													75.0000	0.04	3.00
Rice Seed	lb													75.0000	0.21	15.75
Roller	32'-12R30	MFWD 170	0.046	1.00	Apr	1.12	1.26	0.12	0.84	0.04	0.44					3.78
Ditcher		2WD 130	0.020	1.00	Apr	0.36	0.36	0.03	0.06	0.02	0.19					1.00
Cstm Ap Grd. Herb	acre			1.00	Apr									1.0000	5.02	5.02
Command 3ME	pt													0.8000	11.22	8.98
Survey Levee	acre			1.00	Apr									1.0000	4.00	4.00
Levee Disk	8 blade	MFWD 190	0.025	2.00	Apr	1.33	1.42	0.05	0.34	0.05	0.47					3.61
Levee Seeder	8 blade	MFWD 190	0.025	1.00	Apr	0.66	0.71	0.07	0.46	0.05	0.44					2.34
Rice Seed	lb													9.0000	0.21	1.89
Release - Seed Trt	lbseed													9.0000	0.06	0.55
Fungicide Seed Trt	lbseed													9.0000	0.04	0.36
Gate Installer		MFWD 105	0.025	1.00	Apr	0.35	0.27	0.11	0.47	0.02	0.24					1.44
Levee Gates	acre													1.0000	1.50	1.50
Blade-Scraper	8'-10'	2WD 50		1.00	Apr											
Cstm Ap Air Fert	lb			1.00	May									233.0000	0.05	13.05
Urea, Solid (46% N)	lb													233.0000	0.20	46.60
Cstm Ap Air Herb	acre			1.00	May									1.0000	5.95	5.95
Propanil 4E	pt													6.0000	2.64	15.84
Permit 75	oz													1.0000	16.36	16.36
Facet 75DF	lb													0.2500	45.69	11.42
Cstm Spray Levee,ATV	acre			1.00	Jul									1.0000	4.00	4.00
2,4-D Amine	pt													0.2000	1.79	0.36
Cstm Ap Air Fert	lb			1.00	Jul									100.0000	0.05	5.60
Urea, Solid (46% N)	lb													100.0000	0.20	20.00
Cstm Ap Air Fung	acre			1.00	Aug									0.3000	6.25	1.88
Foliar Fungicide	acre													0.3000	22.14	6.64
Cstm Ap Air Insect	acre			1.00	Aug									0.1000	5.00	0.50
Insecticide-StinkBug	acre													0.1000	4.98	0.50
Header - Rice	25' Rigid	275hp	0.253	1.00	Sep	13.40	23.80	1.61	2.97	0.25	2.40					44.18
Rice Grain Cart	700 Bu	MFWD 190	0.063	1.00	Sep	1.69	1.81	0.37	0.81	0.06	0.60					5.28
Rice Checkoff	bu			1.00	Sep											2.16
Cstm Haul Rice	bu													160.0000	0.15	24.00
Dry Rice	bu													160.0000	0.30	48.00
Levee Splitter (1/80	8 blade	MFWD 150	0.004	1.00	Oct	0.08	0.10		0.03	0.00	0.04					0.25
Flood Irr - Rice	each			1.00	May				24.84					0.0083		24.84
Apply Water	ac-in							74.74		0.45	3.71			30.0000		78.45
TOTALS						34.92	46.96	80.17	39.72	1.64	14.83				326.00	542.60
INTEREST ON OPERATING CAPITAL																22.77
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																565.37

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, Eastern Arkansas, 2008

Farm Owner							
BEY (bu/acre)	Crop Price (\$/bu)						
	3.33	3.70	4.07	4.44	4.81	5.18	5.55
	Net Returns above Variable Costs (\$/acre)						
80	-177	-148	-118	-89	-59	-30	0
86	-159	-127	-95	-64	-32	0	32
93	-138	-104	-69	-35	0	35	69
102	-113	-75	-38	0	38	75	113
112	-83	-42	0	42	83	125	166
125	-46	0	46	93	139	185	232
141	0	52	104	157	209	261	313

Farm Owner is assumed to have 100% Equity in Land

Tenant 75-25 Crop-Share							
BEY (bu/acre)	Crop Price (\$/bu)						
	3.33	3.70	4.07	4.44	4.81	5.18	5.55
	Net Returns above Variable Costs (\$/acre)						
107	-179	-149	-119	-89	-60	-30	0
116	-161	-129	-96	-64	-32	0	32
126	-140	-105	-70	-35	0	35	70
138	-115	-76	-38	0	38	76	115
152	-84	-42	0	42	84	126	169
169	-47	0	47	94	141	188	235
192	0	53	106	160	213	266	319

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 (bu/acre)	Crop Price (\$/bu)						
	3.33	3.70	4.07	4.44	4.81	5.18	5.55
	Net Returns above Variable Costs (\$/acre)						
76	-85	-71	-57	-42	-28	-14	0
83	-76	-61	-46	-31	-15	0	15
90	-67	-50	-33	-17	0	17	33
99	-55	-36	-18	0	18	36	55
109	-40	-20	0	20	40	61	81
122	-23	0	23	45	68	90	113
139	0	26	51	77	103	128	154

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 (bu/acre)	Crop Price (\$/bu)						
	3.33	3.70	4.07	4.44	4.81	5.18	5.55
	Net Returns above Variable Costs (\$/acre)						
100	-178	-149	-119	-89	-59	-30	0
108	-160	-128	-96	-64	-32	0	32
118	-139	-104	-70	-35	0	35	70
129	-114	-76	-38	0	38	76	114
142	-84	-42	0	42	84	126	168
158	-47	0	47	94	141	187	234
179	0	53	106	159	212	265	318

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.