



UNIVERSITY OF ARKANSAS  
DIVISION OF AGRICULTURE  
Cooperative Extension Service

## Estimating 2009 Costs of Production Rice, Clay Soils, Eastern Arkansas

AG-1210-11-08

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ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
<b>DIRECT EXPENSES</b>					
<b>FERTILIZERS</b>					
Urea, Solid (46% N)	lb.	0.30	400.0000	120.00	_____
<b>FUNGICIDES</b>					
Foliar Fungicide	acre	26.94	0.3000	8.08	_____
<b>HERBICIDES</b>					
Command 3ME	pt	12.93	1.5000	19.40	_____
Propanil	pt	3.75	7.6000	28.50	_____
Permit 75 DF	oz	18.07	1.0000	18.07	_____
Facet 75DF	lb	52.09	0.5000	26.05	_____
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>					
Release Seed Trt	lbseed	0.03	101.0000	3.93	_____
Fungicide Seed Trt	lbseed	0.06	101.0000	6.44	_____
Rice Conv.	lbseed	0.27	101.0000	27.27	_____
<b>CUSTOM HIRE</b>					
Survey Levees	acre	7.50	1.0000	7.50	_____
Cstm Ap Grd. Herb	acre	6.00	1.0000	6.00	_____
Cstm Ap Air Fert	lb	0.07	400.0000	30.00	_____
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	1.0146	10.07	_____
Harvesters	hour	9.92	0.2538	2.52	_____
<b>IRRIGATION LABOR</b>					
Flood Irr - Rice	hour	8.60	0.5430	4.67	_____
<b>HAND LABOR</b>					
Implements	hour	8.60	0.1692	1.47	_____
<b>DIESEL FUEL</b>					
Tractors	gal	2.60	9.7504	25.35	_____
Harvesters	gal	2.60	3.5919	9.34	_____
Flood Irr - Rice	gal	2.60	36.0002	93.60	_____
<b>REPAIR &amp; MAINTENANCE</b>					
Implements	acre	6.14	1.0000	6.14	_____
Tractors	acre	3.72	1.0000	3.72	_____
Harvesters	acre	5.15	1.0000	5.15	_____
Flood Irr - Rice	ac-in	0.17	36.0000	6.21	_____
INTEREST ON OP. CAP.	acre	17.29	1.0000	17.29	_____
<b>TOTAL DIRECT EXPENSES</b>				599.82	_____
<b>FIXED EXPENSES</b>					
Implements	acre	16.54	1.0000	16.54	_____
Tractors	acre	27.27	1.0000	27.27	_____
Harvesters	acre	23.39	1.0000	23.39	_____
Flood Irr - Rice	each	3058.64	0.0083	25.39	_____
<b>TOTAL FIXED EXPENSES</b>				92.59	_____
<b>TOTAL SPECIFIED EXPENSES</b>				692.41	_____

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

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC	LABOR	OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						dollars				dollars		dollars			
Disk Harrow	28'	MFWD 225	0.070	2.00	Apr	4.86	4.70	1.30	3.23	0.14	1.39				15.48
Land Plane	50'x16'	MFWD 190	0.151	2.00	Apr	8.83	8.21	0.45	1.41	0.30	3.01				21.91
Field Cultivate Fld	32'	MFWD 190	0.046	1.00	Apr	1.36	1.26	0.32	1.61	0.04	0.46				5.01
Grain Drill	20'	MFWD 170	0.094	1.00	Apr	2.49	2.52	1.12	2.55	0.18	1.75				10.43
Release Seed Trt	lbseed											90.0000	0.03	3.50	3.50
Fungicide Seed Trt	lbseed											90.0000	0.06	5.74	5.74
Rice Conv.	lbseed											90.0000	0.27	24.30	24.30
Roller	32'-12R30	MFWD 170	0.046	1.00	Apr	1.23	1.25	0.10	0.66	0.04	0.46				3.70
Survey Levees	acre			1.00	Apr							1.0000	7.50	7.50	7.50
Cstm Ap Grd. Herb	acre			1.00	Apr							1.0000	6.00	6.00	6.00
Command 3ME	pt											1.5000	12.93	19.40	19.40
Pull Levees	8 blade	MFWD 190	0.025	4.00	Apr	2.91	2.71	0.12	0.74	0.10	0.99				7.47
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
Release Seed Trt	lbseed											11.0000	0.03	0.43	0.43
Fungicide Seed Trt	lbseed											11.0000	0.06	0.70	0.70
Rice Conv.	lbseed											11.0000	0.27	2.97	2.97
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							300.0000	0.07	22.50	22.50
Urea, Solid (46% N)	lb.											300.0000	0.30	90.00	90.00
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											0.5000	52.09	26.05	26.05
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	5.00	Oct	3.64	3.38	0.15	0.93	0.12	1.24				9.34
Flood Irr - Rice	each			1.00	May							0.0083			25.39
Apply Water	ac-in								99.81	0.54	4.67	36.0000			104.48
TOTALS						43.56	50.66	105.95	41.93	1.98	18.73			414.29	675.12
INTEREST ON OPERATING CAPITAL															17.29
TOTAL SPECIFIED COST															692.41

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, Clay Soils, Eastern Arkansas, 2009**

Farm Owner							
BEY (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)						
74	-132	-110	-88	-66	-44	-22	0
77	-115	-92	-69	-46	-23	0	23
81	-96	-72	-48	-24	0	24	48
85	-76	-51	-25	0	25	51	76
90	-53	-27	0	27	53	80	107
95	-28	0	28	56	84	113	141
100	0	30	60	89	119	149	179

Farm Owner is assumed to have 100% Equity in Land

Tenant 75-25 Crop-Share							
BEY (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)						
100	-134	-111	-89	-67	-45	-22	0
104	-116	-93	-70	-47	-23	0	23
109	-98	-73	-49	-24	0	24	49
115	-77	-51	-26	0	26	51	77
121	-54	-27	0	27	54	81	108
128	-29	0	29	57	86	114	143
135	0	30	60	91	121	151	181

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)						
	5.65	5.95	6.25	6.55	6.84	7.14	7.44
	Net Returns above Variable Costs (\$/acre)						
76	-68	-57	-45	-34	-23	-11	0
80	-59	-47	-36	-24	-12	0	12
84	-50	-37	-25	-12	0	12	25
88	-39	-26	-13	0	13	26	39
93	-28	-14	0	14	28	41	55
98	-15	0	15	29	44	58	73
104	0	15	31	46	62	77	93

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)						
	5.65	5.95	6.25	6.55	6.84	7.14	7.44
	Net Returns above Variable Costs (\$/acre)						
93	-133	-111	-89	-67	-44	-22	0
98	-116	-93	-70	-46	-23	0	23
102	-97	-73	-49	-24	0	24	49
107	-77	-51	-26	0	26	51	77
113	-54	-27	0	27	54	81	108
119	-28	0	28	57	85	114	142
126	0	30	60	90	120	150	181

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.