



UNIVERSITY OF ARKANSAS
 DIVISION OF AGRICULTURE
 Cooperative Extension Service

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

AG-1209-11-08

Brad Watkins, Extension Economist
Jeffrey Hignight, Program Associate

Charles E. Wilson, Jr., Extension Agronomist - Rice

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
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	_____
FUNGICIDES					
Foliar Fungicide	acre	26.94	0.3000	8.08	_____
HERBICIDES					
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	_____
INSECTICIDES					
Insecticide-StinkBug	acre	4.83	0.1000	0.48	_____
IRRIGATION SUPPLIES					
Levee Gates	acre	1.95	1.0000	1.95	_____
CROP SEED					
Release Seed Trt	lbseed	0.03	92.0000	3.58	_____
Fungicide Seed Trt	lbseed	0.06	92.0000	5.87	_____
Rice Conv.	lbseed	0.27	92.0000	24.84	_____
CUSTOM HIRE					
Cstm Ap Grd Fert	acre	6.00	1.0000	6.00	_____
Cstm Ap Grd. Herb	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	_____
GIN/DRY					
Dry Rice	bu	0.35	160.0000	56.00	_____
Rice Checkoff	bu	0.01	160.0000	2.16	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.9146	9.08	_____
Harvesters	hour	9.92	0.2538	2.52	_____
IRRIGATION LABOR					
Flood Irr - Rice	hour	8.60	0.4525	3.89	_____
HAND LABOR					
Implements	hour	8.60	0.1692	1.47	_____
DIESEL FUEL					
Tractors	gal	2.60	8.7724	22.81	_____
Harvesters	gal	2.60	3.5919	9.34	_____
Flood Irr - Rice	gal	2.60	30.0001	78.00	_____
REPAIR & MAINTENANCE					
Implements	Acre	6.02	1.0000	6.02	_____
Tractors	Acre	3.35	1.0000	3.35	_____
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	_____

TOTAL DIRECT EXPENSES				690.43	_____
FIXED EXPENSES					
Implements	Acre	15.80	1.0000	15.80	_____
Tractors	Acre	24.56	1.0000	24.56	_____
Harvesters	Acre	23.39	1.0000	23.39	_____
Flood Irr - Rice	each	3058.64	0.0083	25.39	_____

TOTAL FIXED EXPENSES				89.14	_____

TOTAL SPECIFIED EXPENSES				779.57	_____

Visit our web site at: <http://www.uaex.edu>

View or print all of the Arkansas crop budgets at http://www.uaex.edu/depts/ag_economics/crop_budgets.htm

University of Arkansas, United States Department of Agriculture and County Governments Cooperating. The Division of Agriculture offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

Table 2. Estimated resource use and costs for field operations, per acre, Rice, Silt Loam 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
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
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											83.0000	0.03	3.23		3.23
Fungicide Seed Trt	lbseed											83.0000	0.06	5.30		5.30
Rice Conv.	lbseed											83.0000	0.27	22.41		22.41
Roller	32'-12R30	MFWD 170	0.046	1.00	Apr	1.23	1.25	0.10	0.66	0.04	0.46					3.70
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
Release Seed Trt	lbseed											9.0000	0.03	0.35		0.35
Fungicide Seed Trt	lbseed											9.0000	0.06	0.57		0.57
Rice Conv.	lbseed											9.0000	0.27	2.43		2.43
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
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
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
Haul Rice	bu											160.0000	0.22	35.20		35.20
Dry Rice	bu											160.0000	0.35	56.00		56.00
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						40.65	47.95	89.19	41.19	1.79	16.96			522.82		758.76
INTEREST ON OPERATING CAPITAL																20.81
TOTAL SPECIFIED COST																779.57

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, 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)						
87	-156	-130	-104	-78	-52	-26	0
91	-136	-109	-81	-54	-27	0	27
96	-114	-85	-57	-28	0	28	57
100	-90	-60	-30	0	30	60	90
106	-63	-31	0	31	63	94	126
111	-33	0	33	66	99	133	166
118	0	35	70	105	140	175	210

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)						
118	-157	-131	-105	-79	-52	-26	0
123	-137	-110	-82	-55	-27	0	27
129	-115	-86	-58	-29	0	29	58
135	-91	-60	-30	0	30	60	91
143	-64	-32	0	32	64	95	127
151	-34	0	34	67	101	134	168
160	0	36	71	107	142	178	214

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)						
92	-82	-68	-55	-41	-27	-14	0
96	-72	-57	-43	-29	-14	0	14
101	-60	-45	-30	-15	0	15	30
106	-47	-32	-16	0	16	32	47
112	-33	-17	0	17	33	50	67
119	-18	0	18	35	53	71	88
126	0	19	37	56	75	94	112

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)						
110	-157	-131	-105	-79	-52	-26	0
115	-137	-109	-82	-55	-27	0	27
120	-115	-86	-57	-29	0	29	57
127	-90	-60	-30	0	30	60	90
133	-63	-32	0	32	63	95	127
141	-33	0	33	67	100	134	167
149	0	35	71	106	142	177	213

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.