

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

AG-1213-11-08

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	300.0000	90.00	_____
Agrotain	lburea	0.02	200.0000	4.80	_____
FUNGICIDES					
Foliar Fungicide	acre	26.94	1.0000	26.94	_____
Fungicide-Ksmut	acre	9.60	0.5000	4.80	_____
HERBICIDES					
Command 3ME	pt	12.93	0.8000	10.34	_____
Newpath 2SL	oz	3.72	8.0000	29.76	_____
Aim 2EC	oz	6.53	1.5000	9.80	_____
Beyond	oz	4.25	5.0000	21.25	_____
Grandstand R	pt	11.30	0.0670	0.76	_____
Propanil	pt	3.75	1.6000	6.00	_____
INSECTICIDES					
Insecticide-StinkBug	acre	4.83	0.1000	0.48	_____
IRRIGATION SUPPLIES					
Levee Gates	acre	1.95	1.0000	1.95	_____
CROP SEED					
Rice CL Conv.	lbseed	0.63	79.0000	49.77	_____
ADJUVANTS					
Crop Oil	pt	1.80	3.0000	5.40	_____
CUSTOM HIRE					
Cstm Ap Grd	acre	6.00	2.0000	12.00	_____
Survey Levees	acre	7.50	1.0000	7.50	_____
Cstm Ap Air Herb	acre	7.50	3.0000	22.50	_____
Cstm Ap Air Fert	lb	0.07	300.0000	22.50	_____
Cstm Ap Air Fung	acre	7.50	1.5000	11.25	_____
Cstm Spray Levee,ATV	acre	6.00	1.0000	6.00	_____
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	22.68	1.0000	22.68	_____
TOTAL DIRECT EXPENSES				<u>754.90</u>	_____
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				<u>89.14</u>	_____
TOTAL SPECIFIED EXPENSES				<u>844.04</u>	_____

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

Table 2. Estimated resource use and costs for field operations, per acre, Rice, Clearfield, 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 0-60-90	acre			1.00	Apr							1.0000	6.00	6.00	6.00
Field Cultivate Fld	32'	MFWD 190	0.046	1.00	Apr	1.36	1.26	0.32	1.61	0.04	0.46	1.0000	147.51	147.51	147.51
Grain Drill	20'	MFWD 170	0.094	1.00	Apr	2.49	2.52	1.12	2.55	0.18	1.75				10.43
Rice CL Conv.	lbseed											70.0000	0.63	44.10	44.10
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
Rice CL Conv.	lbseed											9.0000	0.63	5.67	5.67
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 Herb	acre			1.00	Apr							1.0000	7.50	7.50	7.50
Newpath + Crop Oil	oz											4.0000	4.17	16.68	16.68
Cstm Ap Air Herb	acre			1.00	May							1.0000	7.50	7.50	7.50
Newpath + Crop Oil	oz											4.0000	4.17	16.68	16.68
Aim 2EC	oz											1.5000	6.53	9.80	9.80
Cstm Ap Air Fert	lb			1.00	May							200.0000	0.07	15.00	15.00
Urea + Agrotain	lb.											200.0000	0.32	64.80	64.80
Cstm Ap Air Herb	acre			1.00	Jun							1.0000	7.50	7.50	7.50
Beyond + Crop Oil	oz											5.0000	4.61	23.05	23.05
Cstm Ap Air Fung	acre			1.00	Jul							1.0000	7.50	7.50	7.50
Foliar Fungicide	acre											1.0000	26.94	26.94	26.94
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							0.5000	7.50	3.75	3.75
Fungicide-Ksmut	acre											0.5000	9.60	4.80	4.80
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						40.65	47.95	89.19	41.19	1.79	16.96			585.42	821.36
INTEREST ON OPERATING CAPITAL															22.68
TOTAL SPECIFIED COST															844.04

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, Clearfield, 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)							
97	-173	-144	-115	-86	-58	-29	0
101	-150	-120	-90	-60	-30	0	30
106	-126	-94	-63	-31	0	31	63
111	-99	-66	-33	0	33	66	99
117	-70	-35	0	35	70	104	139
123	-37	0	37	73	110	147	184
131	0	39	78	117	155	194	233

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)							
130	-174	-145	-116	-87	-58	-29	0
136	-152	-122	-91	-61	-30	0	30
143	-127	-96	-64	-32	0	32	64
150	-100	-67	-33	0	33	67	100
158	-70	-35	0	35	70	106	141
167	-37	0	37	74	112	149	186
177	0	39	79	118	158	197	237

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)							
102	-91	-76	-61	-46	-30	-15	0
107	-79	-64	-48	-32	-16	0	16
112	-67	-50	-33	-17	0	17	33
118	-53	-35	-18	0	18	35	53
124	-37	-18	0	18	37	55	74
131	-20	0	20	39	59	78	98
139	0	21	41	62	83	104	124

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)							
122	-174	-145	-116	-87	-58	-29	0
127	-152	-121	-91	-61	-30	0	30
133	-127	-95	-64	-32	0	32	64
140	-100	-67	-33	0	33	67	100
148	-70	-35	0	35	70	105	140
156	-37	0	37	74	111	148	185
165	0	39	79	118	157	196	236

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.