



UNIVERSITY OF ARKANSAS  
DIVISION OF AGRICULTURE  
Cooperative Extension Service

## Estimating 2009 Costs of Production Corn, Bt/RR, Furrow Irrigated, Clay Soils

AG-1201-11-08

**Brad Watkins, Extension Economist**  
**Jeffrey Hignight, Program Associate**

**Jason Kelley, Extension Agronomist – Wheat and Feed Grains**

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
<b>DIRECT EXPENSES</b>					
<b>FERTILIZERS</b>					
90-75-75	acre	210.83	1.0000	210.83	_____
Urea, Solid (46% N)	lb.	0.30	413.0000	123.90	_____
Agrotain	lburea	0.02	413.0000	9.91	_____
<b>HERBICIDES</b>					
Bicep II Magnum	qt	9.46	1.5000	14.19	_____
Glyphosate Plus	pt	4.82	4.0000	19.28	_____
Atrazine 4L	pt	1.69	2.0000	3.38	_____
Callisto 4SC	oz	4.61	3.0000	13.83	_____
<b>IRRIGATION SUPPLIES</b>					
Irrppip+lay+pickup	acre	13.50	1.0000	13.50	_____
<b>CROP SEED</b>					
Corn Seed Bt/RR	thous	2.97	33.0000	98.01	_____
<b>CUSTOM HIRE</b>					
Cstm Ap Grd Fert	acre	6.00	2.0000	12.00	_____
Cstm Ap Grd. Herb	acre	6.00	3.0000	18.00	_____
Cstm Ap Air Fert	lb	0.07	100.0000	7.50	_____
Haul Corn	bu	0.22	150.0000	33.00	_____
<b>GIN/DRY</b>					
Dry Corn	bu	0.19	150.0000	28.50	_____
Corn Checkoff	bu	0.01	150.0000	1.50	_____
<b>OPERATOR LABOR</b>					
Tractors	hour	9.92	0.4729	4.70	_____
Harvesters	hour	9.92	0.1277	1.27	_____
<b>IRRIGATION LABOR</b>					
Furrow Irr.	hour	8.60	0.3017	2.59	_____
<b>HAND LABOR</b>					
Implements	hour	8.60	0.0942	0.81	_____
<b>DIESEL FUEL</b>					
Tractors	gal	2.60	4.7387	12.31	_____
Harvesters	gal	2.60	1.8070	4.70	_____
Furrow Irr.	gal	2.60	12.0000	31.20	_____
<b>REPAIR &amp; MAINTENANCE</b>					
Implements	acre	4.62	1.0000	4.62	_____
Tractors	acre	1.84	1.0000	1.84	_____
Harvesters	acre	2.59	1.0000	2.59	_____
Furrow Irr.	ac-in	0.18	12.0000	2.25	_____
INTEREST ON OP. CAP.	acre	15.75	1.0000	15.75	_____
<b>TOTAL DIRECT EXPENSES</b>				691.96	_____
<b>FIXED EXPENSES</b>					
Implements	acre	11.31	1.0000	11.31	_____
Tractors	acre	13.52	1.0000	13.52	_____
Harvesters	acre	11.77	1.0000	11.77	_____
Furrow Irr.	each	3058.64	0.0076	23.53	_____
<b>TOTAL FIXED EXPENSES</b>				60.13	_____
<b>TOTAL SPECIFIED EXPENSES</b>				752.09	_____

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](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, Corn, Bt/RR, Furrow Irrigated, Clay Soils, 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	1.00	Nov	2.43	2.35	0.65	1.62	0.07	0.70					7.75
Chisel Plow(Folding)	24'	MFWD 190	0.076	1.00	Nov	2.22	2.07	0.69	1.44	0.07	0.76					7.18
Cstm Ap Grd Fert 90-75-75	acre			1.00	Mar							1.0000	6.00	6.00		6.00
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Mar	1.61	1.56	0.32	1.61	0.04	0.46	1.0000	210.83	210.83		210.83
Disk Bed (Hipper)	8R-30	MFWD 190	0.093	1.00	Apr	2.73	2.54	0.31	0.95	0.09	0.93					7.46
Row Cond Rdg	26'	MFWD 190	0.059	1.00	Apr	1.74	1.62	0.15	0.76	0.05	0.59					4.86
Plant - Rigid Corn Seed Bt/RR	8R-30 thous	MFWD 170	0.094	1.00	Apr	2.49	2.52	0.95	2.15	0.18	1.75					9.86
Cstm Ap Grd. Herb	acre			1.00	Apr							33.0000	2.97	98.01		98.01
Bicep II Magnum	qt											1.0000	6.00	6.00		6.00
Cstm Ap Grd. Herb	acre			1.00	Apr							1.5000	9.46	14.19		14.19
Glyphosate Plus	pt											1.0000	6.00	6.00		6.00
Atrazine 4L	pt											2.0000	4.82	9.64		9.64
Cstm Ap Grd Fert	acre			1.00	Apr							2.0000	1.69	3.38		3.38
Urea, Solid (46% N)	lb.											1.0000	6.00	6.00		6.00
Agrotain	lburea											313.0000	0.30	93.90		93.90
Cstm Ap Grd. Herb	acre			1.00	May							313.0000	0.02	7.51		7.51
Glyphosate Plus	pt											1.0000	6.00	6.00		6.00
Callisto 4SC	oz											2.0000	4.82	9.64		9.64
Cstm Ap Air Fert	lb			1.00	May							3.0000	4.61	13.83		13.83
Urea, Solid (46% N)	lb.											100.0000	0.07	7.50		7.50
Agrotain	lburea											100.0000	0.30	30.00		30.00
Irrppip+lay+pickup	acre			1.00	Jun							100.0000	0.02	2.40		2.40
Header - Corn	8R-30	275hp	0.127	1.00	Sep	7.29	11.77	1.40	2.47	0.12	1.27	1.0000	13.50	13.50		13.50
Haul Corn	bu															24.20
Dry Corn	bu											150.0000	0.22	33.00		33.00
Corn Checkoff	bu											150.0000	0.19	28.50		28.50
Corn Grain Cart	8R30	500 bu	0.031	1.00	Sep	0.93	0.86	0.15	0.31	0.03	0.32					1.50
Furrow Irr.	each	MFWD 190		1.00	Jun-Aug											2.57
Apply Water	ac-in															23.53
																36.04
TOTALS							21.44	25.29	38.07	34.84	0.99	9.37			607.33	736.34
INTEREST ON OPERATING CAPITAL																15.75
TOTAL SPECIFIED COST																752.09

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.**

**Corn, Bt/RR, Furrow Irrigated, Clay Soils, 2009**

Farm Owner							
BEY (bu/acre)	Crop Price (\$/bu)						
	3.46	3.64	3.82	4.00	4.19	4.37	4.55
	Net Returns above Variable Costs (\$/acre)						
153	-167	-139	-111	-83	-56	-28	0
160	-145	-116	-87	-58	-29	0	29
167	-122	-91	-61	-30	0	30	61
176	-96	-64	-32	0	32	64	96
185	-67	-34	0	34	67	101	135
196	-36	0	36	71	107	143	178
208	0	38	76	113	151	189	227

Farm Owner is assumed to have 100% Equity in Land

Tenant 75-25 Crop-Share							
BEY (bu/acre)	Crop Price (\$/bu)						
	3.46	3.64	3.82	4.00	4.19	4.37	4.55
	Net Returns above Variable Costs (\$/acre)						
207	-170	-141	-113	-85	-57	-28	0
217	-148	-118	-89	-59	-30	0	30
228	-124	-93	-62	-31	0	31	62
239	-98	-65	-33	0	33	65	98
253	-69	-34	0	34	69	103	138
267	-36	0	36	73	109	146	182
284	0	39	77	116	155	194	232

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)						
	3.46	3.64	3.82	4.00	4.19	4.37	4.55
	Net Returns above Variable Costs (\$/acre)						
170	-93	-77	-62	-46	-31	-15	0
178	-81	-65	-49	-32	-16	0	16
187	-68	-51	-34	-17	0	17	34
197	-54	-36	-18	0	18	36	54
208	-38	-19	0	19	38	57	76
221	-20	0	20	40	60	80	101
235	0	21	43	64	86	107	128

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)						
	3.46	3.64	3.82	4.00	4.19	4.37	4.55
	Net Returns above Variable Costs (\$/acre)						
193	-169	-141	-113	-84	-56	-28	0
202	-147	-118	-88	-59	-29	0	29
212	-124	-93	-62	-31	0	31	62
223	-98	-65	-33	0	33	65	98
235	-69	-34	0	34	69	103	137
249	-36	0	36	73	109	145	181
264	0	38	77	115	154	192	231

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.