



UNIVERSITY OF ARKANSAS  
 DIVISION OF AGRICULTURE  
 Cooperative Extension Service

## Estimating 2009 Costs of Production Corn, Conventional Furrow Irrigated, Loamy Soils

AG-1197-11-08

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ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
<b>DIRECT EXPENSES</b>					
<b>FERTILIZERS</b>					
70-75-75	acre	197.79	1.0000	197.79	_____
Urea, Solid (46% N)	lb.	0.30	325.0000	97.50	_____
Agrotain	lburea	0.02	325.0000	7.80	_____
<b>HERBICIDES</b>					
Bicep II Magnum	qt	9.46	1.5000	14.19	_____
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 Conv.	thous	2.33	33.0000	76.89	_____
<b>ADJUVANTS</b>					
Crop Oil	pt	1.80	2.0000	3.60	_____
<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	_____
Haul Corn	bu	0.22	175.0000	38.50	_____
<b>GIN/DRY</b>					
Dry Corn	bu	0.19	175.0000	33.25	_____
Corn Checkoff	bu	0.01	175.0000	1.75	_____
<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	13.79	1.0000	13.79	_____
				-----	
<b>TOTAL DIRECT EXPENSES</b>				614.65	_____
<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	0.0083	25.49	_____
				-----	
<b>TOTAL FIXED EXPENSES</b>				62.09	_____
				-----	
<b>TOTAL SPECIFIED EXPENSES</b>				676.74	_____

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**Table 2. Estimated resource use and costs for field operations, per acre, Corn, Conventional, Furrow Irrigated, Loamy 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	acre			1.00	Mar							1.0000	6.00	6.00		6.00
70-75-75	acre											1.0000	197.79	197.79		197.79
Field Cultivate Fld	32'	MFWD 225	0.046	1.00	Mar	1.61	1.56	0.32	1.61	0.04	0.46					5.56
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	8R-30	MFWD 170	0.094	1.00	Apr	2.49	2.52	0.95	2.15	0.18	1.75					9.86
Corn Seed Conv.	thous											33.0000	2.33	76.89		76.89
Cstm Ap Grd. Herb	acre			1.00	Apr							1.0000	6.00	6.00		6.00
Bicep II Magnum	qt											1.5000	9.46	14.19		14.19
Cstm Ap Grd. Herb	acre			1.00	Apr							1.0000	6.00	6.00		6.00
Atrazine 4L	pt											2.0000	1.69	3.38		3.38
Crop Oil	pt											1.0000	1.80	1.80		1.80
Cstm Ap Grd Fert	acre			1.00	Apr							1.0000	6.00	6.00		6.00
Urea, Solid (46% N)	lb.											325.0000	0.30	97.50		97.50
Agrotain	lburea											325.0000	0.02	7.80		7.80
Cstm Ap Grd. Herb	acre			1.00	May							1.0000	6.00	6.00		6.00
Callisto 4SC	oz											3.0000	4.61	13.83		13.83
Crop Oil	pt											1.0000	1.80	1.80		1.80
Irrppip+lay+pickup	acre			1.00	Jun							1.0000	13.50	13.50		13.50
Header - Corn	8R-30	275hp	0.127	1.00	Sep	7.29	11.77	1.40	2.47	0.12	1.27					24.20
Haul Corn	bu											175.0000	0.22	38.50		38.50
Dry Corn	bu											175.0000	0.19	33.25		33.25
Corn Checkoff	bu											175.0000	0.01	1.75		1.75
Corn Grain Cart	8R30 500 bu	MFWD 190	0.031	1.00	Sep	0.93	0.86	0.15	0.31	0.03	0.32					2.57
Furrow Irr.	each			1.00	Jun-Aug				25.49						0.0083	25.49
Apply Water	ac-in								33.45						0.30	2.59
															12.0000	36.04
TOTALS						21.44	25.29	38.07	36.80	0.99	9.37				531.98	662.95
INTEREST ON OPERATING CAPITAL																13.79
TOTAL SPECIFIED COST																676.74

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. **AG-1197-11-08**

**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, Conventional, Furrow Irrigated, Loamy 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)						
131	-143	-120	-96	-72	-48	-24	0
137	-125	-100	-75	-50	-25	0	25
144	-105	-79	-52	-26	0	26	52
151	-83	-55	-28	0	28	55	83
159	-58	-29	0	29	58	87	116
169	-31	0	31	61	92	123	153
179	0	33	65	98	130	163	195

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)						
178	-146	-122	-97	-73	-49	-24	0
187	-127	-102	-76	-51	-25	0	25
196	-107	-80	-53	-27	0	27	53
206	-84	-56	-28	0	28	56	84
217	-59	-30	0	30	59	89	119
230	-31	0	31	63	94	126	157
244	0	33	67	100	133	167	200

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)						
147	-80	-67	-53	-40	-27	-13	0
154	-70	-56	-42	-28	-14	0	14
162	-59	-44	-29	-15	0	15	29
170	-47	-31	-16	0	16	31	47
180	-33	-16	0	16	33	49	66
191	-17	0	17	35	52	70	87
203	0	19	37	56	74	93	111

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)						
166	-145	-121	-97	-73	-48	-24	0
174	-127	-101	-76	-51	-25	0	25
183	-106	-80	-53	-27	0	27	53
192	-84	-56	-28	0	28	56	84
203	-59	-30	0	30	59	89	118
214	-31	0	31	62	94	125	156
227	0	33	66	99	132	166	199

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.