



UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE
Cooperative Extension Service

Estimating 2009 Costs of Production Corn, Bt/RR, Center Pivot Irrigated, Loamy Soils

AG-1196-11-08

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	
DIRECT EXPENSES					
FERTILIZERS					
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	_____
HERBICIDES					
Glyphosate Plus	pt	4.82	4.0000	19.28	_____
Atrazine 4L	pt	1.69	2.0000	3.38	_____
Bicep II Magnum	qt	9.46	1.5000	14.19	_____
Callisto 4SC	oz	4.61	3.0000	13.83	_____
CROP SEED					
Corn Seed Bt/RR	thous	2.97	33.0000	98.01	_____
CUSTOM HIRE					
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	_____
GIN/DRY					
Dry Corn	bu	0.19	175.0000	33.25	_____
Corn Checkoff	bu	0.01	175.0000	1.75	_____
OPERATOR LABOR					
Tractors	hour	9.92	0.3194	3.18	_____
Harvesters	hour	9.92	0.1277	1.27	_____
IRRIGATION LABOR					
Center pivot Irr.	hour	8.60	0.0974	0.84	_____
HAND LABOR					
Implements	hour	8.60	0.0942	0.81	_____
DIESEL FUEL					
Tractors	gal	2.60	3.2377	8.41	_____
Harvesters	gal	2.60	1.8070	4.70	_____
Center pivot Irr.	gal	2.60	24.0000	62.40	_____
REPAIR & MAINTENANCE					
Implements	acre	4.16	1.0000	4.16	_____
Tractors	acre	1.27	1.0000	1.27	_____
Harvesters	acre	2.59	1.0000	2.59	_____
Center pivot Irr.	ac-in	1.49	12.0000	17.93	_____
INTEREST ON OP. CAP.	acre	15.03	1.0000	15.03	_____
TOTAL DIRECT EXPENSES				677.87	_____
FIXED EXPENSES					
Implements	acre	9.60	1.0000	9.60	_____
Tractors	acre	9.36	1.0000	9.36	_____
Harvesters	acre	11.77	1.0000	11.77	_____
Center pivot Irr.	each	9060.48	0.0076	69.70	_____
TOTAL FIXED EXPENSES				100.43	_____
TOTAL SPECIFIED EXPENSES				778.30	_____

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, Corn, Bt/RR, Center Pivot 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 70-75-75	acre 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					5.56
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											2.0000	4.82	9.64		9.64
Cstm Ap Grd. Herb	acre			1.00	May							3.0000	4.61	13.83		13.83
Glyphosate Plus	pt											1.0000	6.00	6.00		6.00
Callisto 4SC	oz											2.0000	4.82	9.64		9.64
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	0.031	1.00	Sep	0.93	0.86	0.15	0.31	0.03	0.32					2.57
Center pivot Irr.	each	MFWD 190		1.00	Jun-Aug											69.70
Apply Water	ac-in															81.17
						-----		-----		-----		-----				
TOTALS						16.97	21.13	84.49	79.30	0.63	6.10				555.28	763.27
INTEREST ON OPERATING CAPITAL															15.03	
TOTAL SPECIFIED COST															778.30	

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, Center Pivot 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)						
147	-160	-134	-107	-80	-53	-27	0
154	-140	-112	-84	-56	-28	0	28
161	-117	-88	-59	-29	0	29	59
169	-92	-62	-31	0	31	62	92
178	-65	-32	0	32	65	97	130
188	-34	0	34	69	103	137	171
200	0	36	73	109	145	182	218

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)						
199	-163	-136	-109	-82	-54	-27	0
209	-142	-114	-85	-57	-28	0	28
219	-119	-90	-60	-30	0	30	60
230	-94	-63	-31	0	31	63	94
243	-66	-33	0	33	66	99	133
257	-35	0	35	70	105	140	175
273	0	37	74	112	149	186	223

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)						
146	-80	-66	-53	-40	-27	-13	0
153	-70	-56	-42	-28	-14	0	14
161	-58	-44	-29	-15	0	15	29
169	-46	-31	-15	0	15	31	46
179	-33	-16	0	16	33	49	65
190	-17	0	17	35	52	69	86
202	0	18	37	55	74	92	110

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)						
186	-162	-135	-108	-81	-54	-27	0
195	-142	-113	-85	-57	-28	0	28
204	-119	-89	-59	-30	0	30	59
215	-94	-63	-31	0	31	63	94
226	-66	-33	0	33	66	99	132
239	-35	0	35	70	105	139	174
254	0	37	74	111	148	185	222

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

Landowner Pays Drying Expenses on 20% of the Crop.