

# Estimating 2008 Costs of Production

## Soybean, Full Season, Furrow Irrigation, Conventional

AG-1102-12-07

**C. Robert Stark, Jr., Associate Professor-Agriculture Economics**  
**Jeremy Ross, Extension Agronomist - Soybeans**

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
DIRECT EXPENSES					
FERTILIZERS					
0-18-36	lb	0.17	200.0000	34.60	_____
FUNGICIDES					
Folicur	oz	2.05	4.0000	8.20	_____
HERBICIDES					
Dual Magnum	pt	12.14	1.5000	18.21	_____
Canopy SP	oz	1.39	3.0000	4.17	_____
Storm	pt	10.23	1.0000	10.23	_____
Select 2EC	oz	1.30	4.0000	5.20	_____
INSECTICIDES					
Orthene 90S	lb	8.59	1.0000	8.59	_____
IRRIGATION SUPPLIES					
IrrPipe+lay+pickup	acre	10.30	1.0000	10.30	_____
SEED/PLANTS					
Soybean Seed Private	lb	0.38	45.0000	17.10	_____
ADJUVANTS					
Surfactant (80-20)	pt	1.27	0.4000	0.51	_____
CUSTOM HIRE					
Cstm Ap Grd Fert	acre	4.92	1.0000	4.92	_____
Cstm Ap Grd. Herb	acre	5.02	1.0000	5.02	_____
Cstm Ap Air Fung	acre	6.25	1.0000	6.25	_____
Cstm Ap Air Insect	acre	5.00	1.0000	5.00	_____
Cstm Ap Air Herb	acre	5.95	1.0000	5.95	_____
Cstm Haul Soybeans	bu	0.15	45.0000	6.75	_____
OPERATOR LABOR					
Tractors	hour	9.45	0.4924	4.65	_____
Harvesters	hour	9.45	0.1021	0.97	_____
IRRIGATION LABOR					
Furrow Irr.	hour	8.19	0.3771	3.10	_____
HAND LABOR					
Implements	hour	8.19	0.1190	0.97	_____
DIESEL FUEL					
Tractors	gal	2.33	5.0521	11.78	_____
Harvesters	gal	2.33	1.4457	3.37	_____
Furrow Irr.	gal	2.33	15.0000	34.95	_____
REPAIR & MAINTENANCE					
Implements	acre	3.96	1.0000	3.96	_____
Tractors	acre	1.93	1.0000	1.93	_____
Harvesters	acre	2.03	1.0000	2.03	_____
Furrow Irr.	ac-in	0.17	15.0000	2.65	_____
INTEREST ON OP. CAP.	acre	9.04	1.0000	9.04	_____
TOTAL DIRECT EXPENSES				230.40	_____
FIXED EXPENSES					
Implements	acre	11.31	1.0000	11.31	_____
Tractors	acre	14.83	1.0000	14.83	_____
Harvesters	acre	9.58	1.0000	9.58	_____
Furrow Irr.	each	2993.11	0.0083	24.94	_____
TOTAL FIXED EXPENSES				60.66	_____
TOTAL SPECIFIED EXPENSES				291.06	_____

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, religion, national origin, 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, Full Season, Soybeans, Furrow Irrigation, Conventional, 2008**

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	4.41	4.72	1.17	3.06	0.14	1.33				14.69
Cstm Ap Grd Fert	acre			1.00	May							1.0000	4.92	4.92	4.92
0-18-36	lb											200.0000	0.17	34.60	34.60
Field Cult & Inc Fld	32'	MFWD 225	0.049	1.00	May	1.56	1.67	0.42	2.17	0.07	0.67				6.49
Dual Magnum	pt											1.5000	12.14	18.21	18.21
Canopy SP	oz											3.0000	1.39	4.17	4.17
Plant - Rigid	8R-30	MFWD 170	0.094	1.00	May	2.25	2.55	0.91	2.16	0.18	1.66				9.53
Soybean Seed Private	lb											45.0000	0.38	17.10	17.10
Ditcher		MFWD 105	0.020	0.10	May	0.03	0.03		0.01	0.00	0.02				0.09
Cultivate	8R-30	MFWD 190	0.103	1.00	May	2.73	2.93	0.43	1.40	0.10	0.97				8.46
Cultivate	8R-30	MFWD 190	0.103	1.00	May	2.73	2.93	0.43	1.40	0.10	0.97				8.46
IrrPipe+lay+pickup	acre			1.00	Jun							1.0000	10.30	10.30	10.30
Cstm Ap Grd. Herb	acre			1.00	Jun							1.0000	5.02	5.02	5.02
Storm	pt											1.0000	10.23	10.23	10.23
Surfactant (80-20)	pt											0.4000	1.27	0.51	0.51
Cstm Ap Air Fung	acre			1.00	Jun							1.0000	6.25	6.25	6.25
Folicur	oz											4.0000	2.05	8.20	8.20
Cstm Ap Air Insect	acre			1.00	Jul							1.0000	5.00	5.00	5.00
Orthene 90S	lb											1.0000	8.59	8.59	8.59
Cstm Ap Air Herb	acre			1.00	Aug							1.0000	5.95	5.95	5.95
Select 2EC	oz											4.0000	1.30	5.20	5.20
Header - Soybean	25' Flex	275hp	0.102	1.00	Oct	5.40	9.58	0.60	1.11	0.10	0.97				17.66
Cstm Haul Soybeans	bu			1.00	Oct							45.0000	0.15	6.75	6.75
Furrow Irr.	each			1.00	Jun				24.94			0.0083			24.94
Application 1	ac-in			1.00	Jun			7.52		0.07	0.62	3.0000			8.14
Application 2	ac-in			1.00	Jun			7.52		0.07	0.62	3.0000			8.14
Application 3	ac-in			1.00	Jul			7.52		0.07	0.62	3.0000			8.14
Application 4	ac-in			1.00	Jul			7.52		0.07	0.62	3.0000			8.14
Application 5	ac-in			1.00	Aug			7.52		0.07	0.62	3.0000			8.14
TOTALS						19.11	24.41	41.56	36.25	1.09	9.69			151.00	282.02
INTEREST ON OPERATING CAPITAL															9.04
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															291.06

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. Breakeven Yields (BEY) Required to Cover Direct Expenses and Net Returns above Direct Expenses for Price/Yield Combinations and Select Land Tenure Arrangements, per acre.**

**Soybean, Full Season, Furrow Irrigated, Conventional, 2008**

**Farm Owner**

BEY (bu/acre)	Crop Price (\$/bu)						
	5.70	6.51	7.32	8.13	8.94	9.75	10.56
	Returns above Variable Costs (\$/Acre)						
21	-104	-87	-70	-52	-35	-17	0
23	-94	-75	-57	-38	-19	0	19
25	-82	-62	-41	-21	0	21	41
28	-68	-45	-23	0	23	45	68
31	-51	-25	0	25	51	76	101
35	-28	0	28	57	85	114	142
40	0	33	65	98	131	163	196

Farm Owner is assumed to have 100% Equity in Land

**Tenant 75-25 Crop-Share**

BEY (bu/acre)	Crop Price (\$/bu)						
	5.70	6.51	7.32	8.13	8.94	9.75	10.56
	Returns above Variable Costs (\$/Acre)						
29	-105	-87	-70	-52	-35	-17	0
31	-95	-76	-57	-38	-19	0	19
34	-83	-62	-41	-21	0	21	41
38	-69	-46	-23	0	23	46	69
42	-51	-25	0	25	51	76	102
47	-29	0	29	57	86	115	144
54	0	33	66	99	132	165	198

Landowner Receives 25% of the Crop.

Tenant pays 100% of Hauling Crop to Grain Elevator

Landowner Pays 100% of Fixed Irrigation Expenses

**Tenant 90-10 Crop-Share**

BEY (bu/acre)	Crop Price (\$/bu)						
	5.70	6.51	7.32	8.13	8.94	9.75	10.56
	Returns above Variable Costs (\$/Acre)						
24	-105	-87	-70	-52	-35	-17	0
26	-95	-76	-57	-38	-19	0	19
28	-83	-62	-41	-21	0	21	41
31	-68	-45	-23	0	23	45	68
35	-51	-25	0	25	51	76	101
39	-29	0	29	57	86	114	143
45	0	33	65	98	131	164	196

Landowner Receives 10% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.

**Tenant 80-20 Crop-Share**

BEY (bu/acre)	Crop Price (\$/bu)						
	5.70	6.51	7.32	8.13	8.94	9.75	10.56
	Returns above Variable Costs (\$/Acre)						
27	-105	-87	-70	-52	-35	-17	0
29	-95	-76	-57	-38	-19	0	19
32	-83	-62	-41	-21	0	21	41
35	-68	-46	-23	0	23	46	68
39	-51	-25	0	25	51	76	102
44	-29	0	29	57	86	115	143
51	0	33	66	99	131	164	197

Landowner Receives 20% of the Crop

Tenant Pays 100% of Hauling Crop to Grain Elevator.