

# Soybean Cost-Return Budget for Northern, Central, and Southwest Missouri

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Crop returns and costs vary considerably throughout Missouri. The following budgets estimate potential returns/costs for soybean production in northern, central and southwest Missouri. To customize the budget for your own farm, adjust yields and costs to represent your individual production system and farm productivity.

## Income Per Acre

Crop production costs per unit and net returns are highly dependent on yields. The following budget includes three yield levels, representing land of varying quality with similar levels of production management. Land values and fixed direct government program payments (estimated average payment per cropland base acre) have been adjusted to represent land productivity. Budgeted price approximates the price that would trigger counter cyclical government program payments (CCP). Revenue losses from lower prices would be partially offset by CCP.

## Cost Per Acre

Crop production costs vary by production system and plant nutrients needed to meet higher yield levels. Table 1 identifies typical seeding rate, fertilizer, herbicide and insecticide requirements (rate and cost/unit) for the various yield levels. The budgets assume Roundup Ready® varieties and typical drilled seeding rates for the expected yields. Most Missouri farmers do not apply fertilizer directly to soybean, but assume carryover from the previous year's corn crop in

**Table 1. Production Inputs — Soybean**

Item	Yield Level (bu)			
	35	45	55	
Seed-RR, 1,000/acre (150,000 seeds/bag)	180	180	180	\$24.00/bag
Fertilizer:				
N (anhydrous)	0	0	0	\$0.20/lb
N (liquid/dry)	0	0	0	\$0.25/lb
P removal*	30	48	46	\$0.26/lb
K removal*	50	65	80	\$0.14/lb
Lime	0.5	0.5	0.5	\$11.00/ton
Herbicide				
Glyphosphate (.375 acid equivalent)	1	1	1	\$5.50/ac
+ Ammonium Sulfate	2	2	2	\$0.29/lb
Insecticide / Fungicide				

\* Often applied to corn in rotation with none applied to soybeans

rotation—the budget amounts reflect typical crop removal rates. The annualized lime cost includes application and this varies throughout the state depending on ENM and hauling distance. The herbicide costs represent a single application

**Table 2. Machinery and Land Resources — Soybean**

ITEM	Yield Level (bu)			
	35	45	55	
Tillage/Planting/Chemical Applications:				
V-ripper	0	0	0	\$9.20/ac
Disk	1	1	1	\$5.67/ac
Field cultivate	1	1	1	\$3.09/ac
Drill	1	1	1	\$8.31/ac
No-till drill	0	0	0	\$12.83/ac
Dry fertilizer application	0	0	0	\$4.50/ac
Herbicide application	1	1	1	\$4.50/ac
Insecticide / fungicide application	0	0	0	\$4.50/ac
Harvest				
Combine, soybean head	1	1	1	\$22.80/ac
Grain cart	0	1	1	\$9.08/ac
Hauling	35	45	55	\$0.10/bu
Non-machinery labor	1.50	1.50	1.50	\$10.00/hr
Land value/acre	\$990	\$1,460	\$1,980	5.50%
Interest on capital				7.5%

of glyphosate. In some cases, a second application is needed to “clean-up” late emerging weeds.

Machinery costs are based on a typical tillage system with field operations identified in Table 2. Custom rates are used for herbicide and dry fertilizer applications. Economic engineering approach estimates are used for machinery and labor field operation costs. Hauling costs are based on custom hauling charges. In no-till operations, reduced tillage costs may be offset by higher no-till planting costs and pre-emergence herbicide “burn down” costs.

Land costs are based on owned land. If the land is cash rented, the actual cash rent per acre should be used as land cost. If land is rented through a crop share arrangement, shared costs and returns should be shown as they are split.

**Acknowledgments** — These budgets were prepared with input from the following committee: UMC Agriculture Economists — Joe Parcell and Ray Massey; University Outreach and Extension Regional Specialists — Mary Sobba, David Reinbott, Don Null, Wayne Crook; UMC Student — Todd Gerlt

**COST-RETURN PROJECTION — SOYBEANS — NORTHERN, CENTRAL AND SOUTHWEST MISSOURI**

	Yield Level (bu)			Your Farm
	35	45	55	
<b>INCOME PER ACRE</b>				
A. Yield per acre .....	35	45	55	_____
B. Price per bushel .....	\$ 5.30	\$ 5.30	\$ 5.30	_____
C. Net government payment .....	\$ 12.57	\$ 14.15	\$ 15.74	_____
D. Indemnity payments .....	\$ _____	\$ _____	\$ _____	_____
E. Miscellaneous income .....	\$ _____	\$ _____	\$ _____	_____
F. Returns/acre ((A × B) + C + D + E) .....	\$ 198.07	\$ 252.65	\$ 307.24	_____
<b>COSTS PER ACRE</b>				
1. Seed .....	\$ 28.80	\$ 28.80	\$ 28.80	_____
2. Herbicide .....	6.08	6.08	6.08	_____
3. Insecticide / Fungicide .....	_____	_____	_____	_____
4. Fertilizer and Lime .....	20.30	27.08	28.66	_____
5. Crop Consulting .....	_____	_____	_____	_____
6. Crop Insurance .....	_____	_____	_____	_____
7. Drying .....	_____	_____	_____	_____
8. Miscellaneous .....	10.00	10.00	10.00	_____
9. Custom Hire / Machinery Expense .....	47.88	57.96	58.96	_____
10. Non-machinery Labor .....	15.00	15.00	15.00	_____
11. Irrigation				
a. Labor .....	_____	_____	_____	_____
b. Fuel and Oil .....	_____	_____	_____	_____
c. Repairs and Maintenance .....	_____	_____	_____	_____
d. Depreciation on Equipment and Well .....	_____	_____	_____	_____
e. Interest on Equipment .....	_____	_____	_____	_____
12. Land Charge / Rent .....	54.45	80.30	108.90	_____
G. SUB TOTAL .....	\$ 182.51	\$ 225.22	\$ 256.40	_____
13. Interest on 1/2 Nonland Costs .....	4.80	5.43	5.53	_____
H. TOTAL COSTS .....	\$ 187.32	\$ 230.66	\$ 261.94	_____
I. RETURNS OVER COSTS (F - H) .....	\$ 10.75	\$ 21.99	\$ 45.30	_____
J. TOTAL COSTS/BUSHEL (H ÷ A) .....	\$ 5.35	\$ 5.13	\$ 4.76	_____
K. RETURN TO ANNUAL COST (I + 13) ÷ G .....	8.52%	12.18%	19.83%	_____

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University of Missouri, College of Agriculture, Food and Natural Resources

FBM-0201

December 2002

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