

Soybean, Moderate Yield Threshold*-2023

NC STATE
UNIVERSITY

ESTIMATED COSTS AND RETURNS PER ACRE, 2023
50 BUSHEL AVERAGE YIELD HISTORY*

	UNIT	QUANTITY	PRICE OR COST/UNIT	TOTAL PER ACRE	YOUR FARM
1. GROSS RECEIPTS					
SOYBEANS***	BU.	50.00	\$14.22	\$711.00	_____
TOTAL RECEIPTS:				\$711.00	_____
2. VARIABLE COSTS					
SEED (CERTIFIED)	THOU.	130.00	\$0.42	\$54.60	_____
FERTILIZER					
PHOSPHATE (0-46-0)	LBS	85.00	\$0.46	\$39.10	_____
POTASH (0-0-60)	LBS	115.00	\$0.51	\$58.65	_____
LIME (PRORATED)	TON	0.33	\$57.00	\$18.81	_____
HERBICIDES**	ACRE	1.00	\$72.61	\$72.61	_____
FUNGICIDES**	ACRE	1.00	\$23.55	\$23.55	_____
INSECTICIDES**	ACRE	1.00	\$16.50	\$16.50	_____
HAULING	BU.	50.00	\$0.60	\$30.00	_____
TRACTOR/MACHINERY	ACRE	1.00	\$70.60	\$70.60	_____
SCOUT	ACRE	1.00	\$16.00	\$16.00	_____
LABOR	HRS	2.00	\$14.16	\$28.32	_____
INTEREST ON OP. CAP.	DOL.	\$177.21	8.0%	\$14.18	_____
TOTAL VARIABLE COSTS:				\$442.92	_____
3. INCOME ABOVE VARIABLE COSTS:				\$268.08	_____
4. FIXED COSTS					
TRACTOR/MACHINERY	ACRE	1.00	\$88.02	\$88.02	_____
TOTAL FIXED COSTS:				\$88.02	_____
5. OTHER COSTS					
GENERAL OVERHEAD	DOL.	\$442.92	7.0%	\$31.00	_____
TOTAL OTHER COSTS:				\$31.00	_____
6. TOTAL COSTS:				\$561.94	_____
7. NET RETURNS TO LAND, RISK, AND MANAGEMENT:				\$149.06	_____

BREAK-EVEN YIELD

VARIABLE COSTS	31	BU.	<u>BREAK-EVEN PRICE</u>	VARIABLE COSTS	\$8.86
TOTAL COSTS	40	BU.	TOTAL COSTS	TOTAL COSTS	\$11.24

-THIS BUDGET WAS DEVELOPED FOR PLANNING PURPOSES ONLY AND DOES NOT INCLUDE LAND RENT, EACH GROWER SHOULD CALCULATE THEIR COST BASED ON THEIR PRICE OF INPUTS, LOCATION, AND MAINTENEC E PRACTICES

- FERTILIZER AMOUNTS ARE BASED ON HISTORICAL DATA OF REMOVAL RATES FOR N, P2O5, K2O AND YEILD. GROWERS SHOULD SOIL SAMPLE TO DETERMINE RATES OF APPLICATION FOR NUTRIENTS IN SOYBEANS

SOYBEANS - FULL SEASON-CONVENTIONAL

PER ACRE MACHINERY AND LABOR REQUIREMENTS FOR SOYBEANS						
MONTH	OPERATION	TIMES	LABOR	MACHINE	VARIABLE	FIXED
		OVER	HOURS	HOURS	COSTS	COSTS
5	HEAVY DISK 16'	1.00	0.14	0.12	\$4.56	\$7.08
5	TANDOM LIGHT DISK 20'	1.00	0.14	0.12	\$3.80	\$5.02
5 or 6	PLANTER 12-ROW	1.00	0.12	0.10	\$5.44	\$15.80
5,6	TRACTOR MTD SPRAYER 90FT	3.00	0.11	0.09	\$4.08	\$12.48
10	COMBINE W/ HEADER 20'	1.00	0.22	0.18	\$45.65	\$43.76
10	GRAIN CART 1100	1.00	0.16	0.13	\$7.07	\$3.88
PER ACRE TOTALS FOR SELECTED OPERATIONS			0.89	0.74	\$70.60	\$88.02
UNALLOCATED LABOR(HRS./AC.)			1.11			

-EQUIPMENT SELECTION IN THESE BUDGETS VARY FOR COST REPRESENTATION OF VARIATION IN PRACTICES, ACTUAL EQUIPMENT SELECTION WILL VARY FROM TO FARM AND REGION TO REGION

INCOME ABOVE VARIABLE COSTS AT DIFFERING YIELDS AND PRICES					
YIELD	PRICE (\$/bu.)				
BU.	\$12.80	\$13.51	\$14.22	\$14.93	\$15.64
42	\$99.48	\$129.30	\$159.12	\$188.94	\$218.76
46	\$148.28	\$180.94	\$213.60	\$246.26	\$278.92
50	\$197.08	\$232.58	\$268.08	\$303.58	\$339.08
54	\$245.88	\$284.22	\$322.56	\$360.90	\$399.24
58	\$294.68	\$335.86	\$377.04	\$418.22	\$459.40

*THE YEILD REPRESENTED IN THIS BUDGET IS NOT A FUNCTION OF THE MAINTENANCE PRACTICES LISTED. IT IS ASSUMED FARMERS WILL ADJUST THEIR MAINTENANCE PRACTICES BASED ON THEIR ABILITY TO MAXIMIZE PROFIT WITH THEIR GIVEN YEILD HISTORY.

**HERBICIDE COST ASSUME NO RESISTANCE MANAGEMENT, GROWERS SHOULD ONLY APPLY PESTICIDES AS NEEDED

***SOYBEAN PRICES IN THIS BUDGET ARE BASED ON FUTURES PRICES + .15 BASIS FOR LOCAL CONTRACTS AS OF 12-15-2022, BASIS IN NORTH CAROINA IS RELATIVE TO THE DISTANCE FROM SOYBEAN PROCESSING FACILITIES IN FAYETTEVILLE, NC

Prepared by: Derek Washburn, NC State Department of Agricultural and Resource Economics

Edited by: Rachel Vann, Wesley Everman, and Jenny Carleo -NC State Department of Crop and Soil Science