

Estimates of Soybean Production and Yields Based on 8/18/25 Crop Conditions

Gregg Ibendahl

August 24, 2025

Abstract¹

This reports estimates soybean yields for the 18 leading soybean states and then calculates total soybean production and average national soybean yield using the August NASS crop acre estimates. Based on the 8/18/25 crop condition report, total soybean production is estimated to be 4.3 billion bushels with a range from 4.2 billion to 4.4 billion bushels. The national soybean yield is estimated to be 53.9 bu/ac with a range from 52.4 to 55.5 bu/ac. This is an increase of 0.3 bu/ac from last week. Ibendahl's estimate is almost identical to the USDA estimate.

Introduction

This estimate is based on the USDA estimate of crop conditions for 8/18/24 (week #33). For a full description of this procedure and model, readers are encouraged to read "[Estimates of Soybean Production and Yields Based on 6/30/24 Crop Conditions](#)".

USDA/NASS released the [August Crop Production Report](#) this past week. USDA revised soybean acres downward by 3% and these new acre estimates are incorporated here. For comparison, USDA/NASS is currently estimating a 53.6 bu/ac national soybean yield.

Results

Figure 1 is a Likert graph of the soybean crop conditions for the last 20 years in the U.S. The Likert graph is centered on the fair category to make comparisons among years easier. The number along the left-hand-side of the figure is the total of the very poor and poor categories while the number along the right-hand-side is the total of the good and excellent categories.

Figures 2, 3, and 4 show the estimated yield per harvested acre, the estimated harvested acres, and the total production for each of the 18 leading soybean states. The harvested acre estimate comes directly from the USDA-NASS estimate from the August 12, 2025 Acreage Report.

Because the yield per acre from the individual states can't be summed together, the national yield per acre is calculated from the total production divided by the total harvested acres. Total U.S. soybean production is calculated by adjusting the production from the 18 leading soybean states upward based on the historic relationship between U.S. production and the production from the 18 leading soybean states. As calculated, total U.S. soybean production is estimated to be 4.317 billion bushels with a range from 4.195 billion to 4.442 billion bushels. The national soybean yield is estimated to be 53.9 bu/ac with a range from 52.4 to 55.5 bu/ac.

References

Ibendahl, G. "Estimates of Soybean Production and Yields Based on 6/30/2024 Crop Conditions." *farmdoc daily* (14):125, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 8, 2024.
<https://farmdocdaily.illinois.edu/2024/07/estimates-of-soybean-production-and-yields-based-on-6-30-2024-crop-conditions.html>

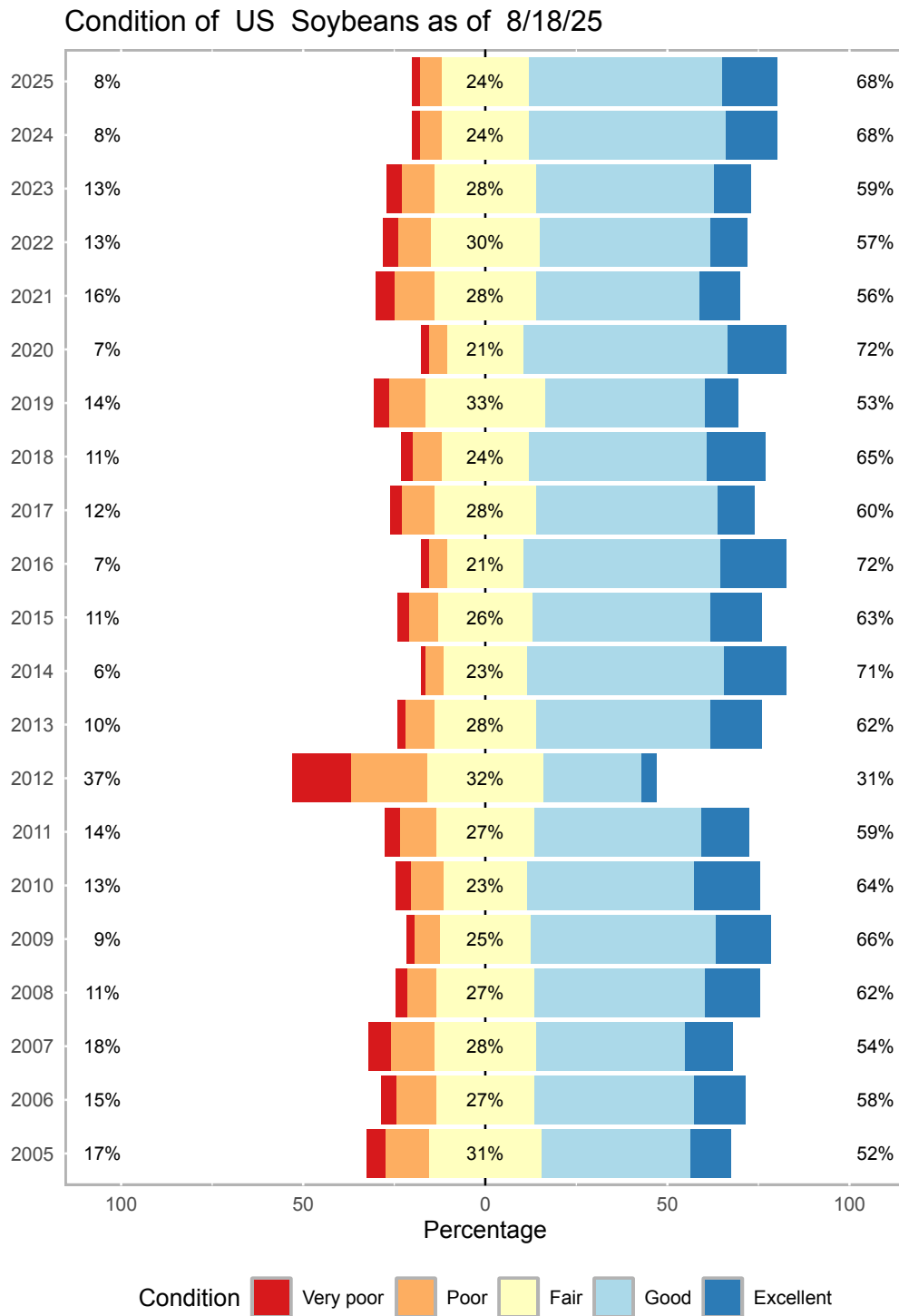


Figure 1. Likert Graph of Soybean Crop Condition

Soybean Yields per Acre by State - 8/18/25					
Bushels per harvested acre					
State	Last year	2025 prediction			R squared
		Lower CI	Predicted	Upper CI	
Arkansas	55.0	56.4	57.3	58.3	0.40
Illinois	64.0	62.9	64.2	65.4	0.17
Indiana	59.0	59.9	60.9	62.0	0.43
Iowa	60.0	60.8	62.9	64.9	0.29
Kansas	35.0	39.4	41.7	44.0	0.48
Kentucky	48.0	52.6	54.0	55.3	0.60
Louisiana	52.0	56.7	58.9	61.1	0.47
Michigan	49.0	47.9	49.4	50.8	0.14
Minnesota	45.0	49.0	50.7	52.4	0.17
Mississippi	56.0	58.9	59.8	60.7	0.64
Missouri	49.0	51.7	53.4	55.0	0.52
Nebraska	57.5	61.6	63.1	64.7	0.52
North_Carolina	39.0	41.4	42.6	43.8	0.64
North_Dakota	37.5	33.2	34.7	36.2	0.07
Ohio	50.0	56.2	57.2	58.3	0.48
South_Dakota	43.0	45.0	46.8	48.7	0.15
Tennessee	42.0	45.5	46.9	48.3	0.74
Wisconsin	48.0	51.0	53.4	55.8	0.31

Figure 2. Estimated Yields per Acre for 18 Leading Soybean States

Soybean Harvested Acres by State - 8/18/25				
1,000 acres				
State	Last year	Planted acres	2025 harvest estimate	
			NASS est	
Arkansas	3,020	2,600	2,570	
Illinois	10,750	10,300	10,250	
Indiana	5,780	5,400	5,380	
Iowa	9,960	9,400	9,330	
Kansas	4,420	4,100	4,050	
Kentucky	2,040	1,800	1,790	
Louisiana	1,060	790	760	
Michigan	2,180	2,050	2,030	
Minnesota	7,320	7,000	6,930	
Mississippi	2,270	1,800	1,770	
Missouri	5,840	5,600	5,540	
Nebraska	5,240	4,800	4,750	
North_Carolina	1,610	1,650	1,630	
North_Dakota	6,550	6,600	6,550	
Ohio	5,030	4,900	4,880	
South_Dakota	5,380	5,100	5,060	
Tennessee	1,800	1,550	1,520	
Wisconsin	2,120	2,000	1,970	
sum	—	82,370	77,440	76,760

Figure 3. Estimated NASS Harvested Acres for 18 Leading Soybean States

Total Soybean Production by State - 8/18/25					
1,000,000 bushels					
State	Last year	2025 prediction			
		Lower CI	Predicted	Upper CI	
Arkansas	166	145	147	150	
Illinois	688	645	658	671	
Indiana	341	322	328	333	
Iowa	598	567	586	606	
Kansas	155	160	169	178	
Kentucky	98	94	97	99	
Louisiana	55	43	45	46	
Michigan	107	97	100	103	
Minnesota	329	340	351	363	
Mississippi	127	104	106	107	
Missouri	286	286	296	305	
Nebraska	301	293	300	307	
North_Carolina	63	68	69	71	
North_Dakota	246	218	227	237	
Ohio	252	274	279	284	
South_Dakota	231	227	237	246	
Tennessee	76	69	71	73	
Wisconsin	102	101	105	110	
sum	—	4,220	4,053	4,172	4,292

Figure 4. Estimated soybean Production for 18 Leading Soybean States

1. Kansas State University - Department of Agricultural Economics

AgManager.info

email: ibendahl@ksu.edu

YouTube: https://www.youtube.com/@little_pond_farm

Substack: <https://agricultural.substack.com>