

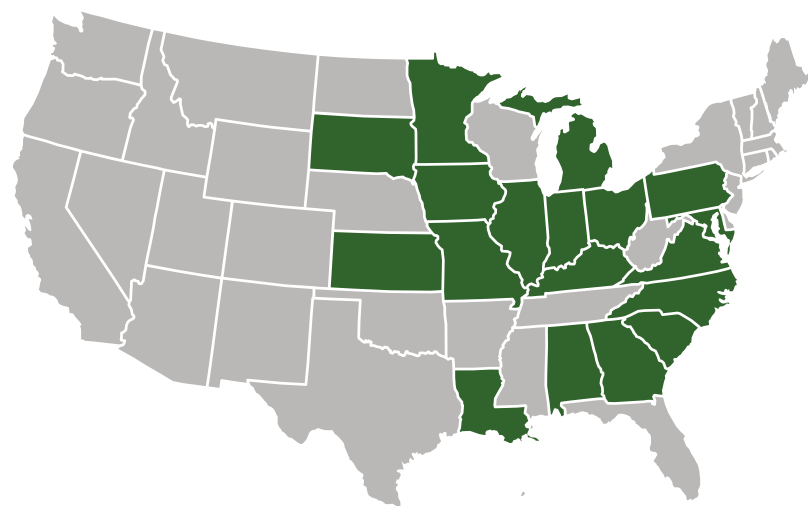
# LIFE CYCLE ASSESSMENT FACT SHEET

The U.S. Soy commodity industry has seen a collective reduction in its global warming potential (GWP) across farming, processing and oil refining operations.

Commissioned by the United Soybean Board (USB) and the National Oilseed Processors Association (NOPA), the LCA study assessed environmental impact across soybean cultivation and harvesting, transportation, and energy usage in processing\*

Soybean cultivation data reflect 454 farms across 16 states and assumed an average production yield of 51 bushels per acre harvested, based on USDA estimates.

Soybean processing and oil refining data reflect 52 U.S. soybean processing plants and 27 co-located soy oil refineries across 18 states.

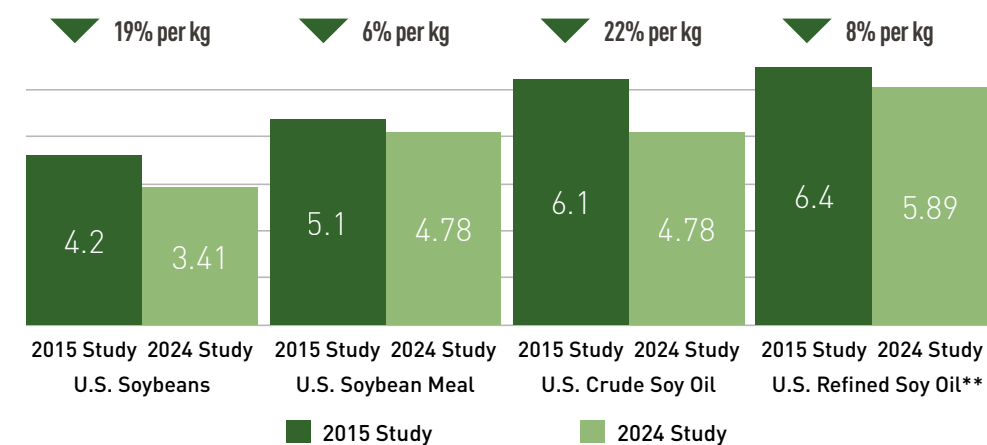


The latest LCA demonstrates the soybean industry's commitment to environmental stewardship and a decreasing carbon footprint which pave the way for increased market opportunities across the food, feed, and biofuel sectors, among other applications.

\* Sustainable Solutions Corporation conducted the LCA based on aggregated operations data

## Survey Results

The 2024 LCA Study is based on 2020-2021 harvesting yields reported by U.S. soybean farmers and 2021 calendar year production data for U.S. soybean processing plants and co-located soy oil refineries as reported by NOPA members.



## Factors contributing to a decrease in global warming potential, include:

**Land Management:** Improving soil health and water quality

**Land Efficiency:** Advances and improvements in seed quality have contributed to a 24% increase in yields since 2015

**Pesticide Application and Energy Consumption:** Changing farming practices, such as decreased chemical application, implementation of no till and expanded cover crops

**Manufacturing:** Improving technologies and efficiencies at oilseed processing operations, such as switching from coal to natural gas fuel sources

\*\*based on data from co-located refineries



We've seen all our farmers make tremendous progress in climate-smart production – whether it's USB Chair **Steve Reinhard in Ohio** practicing no-till and planting rye, barley or red clover as a cover crop to improve soil health; farmer-leader **Nancy Kavazanjian in Wisconsin** using a solar array that powers their farm shop; farmer-leader **Tom Griffiths in Indiana** using filter strips, grass waterways, field borders and windbreaks to protect soil, water and air quality; or farmer-leader **Laurie Isley in Michigan** who uses precision agriculture techniques to adjust nutrient application according to soil type and fertility levels, which minimizes nutrient loss.



The full LCA can be accessed at [www.NOPA.org/Life-Cycle-Assessment-of-U-S-Soybeans-Soybean-Meal-and-Soy-Oil](http://www.NOPA.org/Life-Cycle-Assessment-of-U-S-Soybeans-Soybean-Meal-and-Soy-Oil).