



Date: *September 28, 2023*

Re: *CARB Public Meeting to Hear an Update on the Low Carbon Fuel Standard
(written testimony submitted electronically)*

The American Soybean Association appreciates the California Air Resources Board and staff for holding the Sept. 28 public hearing for an update on the Low Carbon Fuel Standard. ASA represents approximately 500,000 U.S. soybean farmers on domestic and international policy issues important to the soybean industry and has 26 affiliated state associations representing the 30 primary soybean-producing states. American soybean growers have long been committed to producing the world's food, feed, fuel, and thousands of other bioproducts in a sustainable and climate-smart way.

Biomass-based diesel was developed with the support of soybean farmers and helped offset lost demand for soybean oil after the Food and Drug Administration started regulating trans fats in 2006. Soybean growers and others worked to promote commercial production of biodiesel made from soybean oil—a product that supports farmers and rural economies and diversifies the fuel supply while reducing greenhouse gas (GHG) emissions as a drop-in fuel that can be used in diesel engines on the road today.

Sustainability of U.S. Soy

ASA urges CARB to use sound science when determining emissions factor updates to the LCFS. Consideration of updated available scientific data throughout the process will ensure the continued availability of feedstocks like soy to meet California's GHG emissions goals.

Currently, soybean oil represents about half of the feedstock used to produce biomass-based diesel in the United States and, according to the analysis of Clean Fuels Alliance America, biomass-based diesel has led to a savings of 143.8 million metric tons of carbon since 2010. Further, according to the most recent update to the Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model, it is estimated that the current U.S. biomass-based diesel feedstock mix reduces emissions by approximately 74% compared to traditional petroleum diesel.

Soybean producers are already employing sustainability practices on their farms. From 2000 to 2025, the soy industry has committed to reduce land use impacts by an additional 10% (acres per bushel), reduce soil erosion an additional 25% (tons per bushel), increase energy use efficiency by 10% (BTUs per year), and reduce total greenhouse gas emissions by 10% (pounds CO₂-equivalent gases emitted per year). Considerable progress has been made toward these goals, including exceeding the land use and energy use efficiency goals.

Increasing Processing and Production

The rise of renewable diesel in the United States, in addition to our existing biodiesel capacity, appears poised to help meet the growing need for low-carbon fuels as drivers on our country's roads move to reduce their environmental footprint. American soybean farmers and oilseed processors stand ready to support the continued growth of biomass-based diesel production and demand.

By way of background, soybeans are divided into meal and oil when crushed. Soybean meal (approximately 80% of the bean) is primarily used as a high-protein animal feed and in plant-based foods, but it is also an ingredient in plastic composites, synthetic fiber, paper coatings, adhesives, and more. Soybean oil (the remaining 20%) is the only part of the soybean used in biodiesel and renewable diesel, though its versatility affords many uses in addition to edible oil. In fact, only about 4% of U.S. soybean production is used in U.S. biofuels by weight.

Anticipation of increased renewable diesel production, assisted by California's LCFS program, is helping spur changes in the U.S. soybean industry. First, domestic crushing capacity is expanding, with new crush announcements through 2026 totaling more than 500 million bushels of soybeans—over 25% more than recent crush capacity totals. Second, some of the crushing plants are adding the ability to produce refined, bleached and deodorized (RBD) soybean oil, and multiple renewable diesel plants are putting in feedstock pretreatment to eliminate their need for the RBD oil the food sector uses. Simply put, the processing industry is growing to provide soybean oil for continued food use and new fuel use.

Meeting Food & Fuel Demands

U.S. food consumers are largely insulated from variations in soybean oil prices. Dr. Jayson Lusk, a former distinguished professor at Purdue University, considered the impact of a 20% increase in soybean oil used for biofuels—approximately equal to the increase over the past year.¹ Dr. Lusk found this increase can be associated with retail price increases of 0.16% for oil used in frying and baking, 0.82% for margarine, 4.41% for salad and cooking oil, and 0.16% for other oil-containing food items. The retail oil price increases are significantly smaller than those of wholesale prices because soybean oil makes up a small portion of the total cost required to produce retail food products.

Rising soybean oil prices lead to an increased supply of oil, as demand triggers increased production. This also increases the supply of soybean meal, thereby bringing down soybean meal prices and the prices of animal products that rely on soybean meal. Overall, Dr. Lusk found the net impact of the 20% increase in soybean oil used in biofuels was a 0.05% increase in the Consumer Price Index “food at home” category. While the soybean oil food price increases were always considerably small, they are almost entirely offset by the reductions in animal product prices that make up a larger share of the food CPI.

Conclusion

The renewable diesel and soybean industry are making significant investments to produce low carbon biofuels. Much of the investment is already underway based upon the current policy environment. According to trade estimates and as stated above, the U.S. is on track to increase soybean crushing capacity by over 25% between 2023 and 2026. In response to growing domestic and global demand for soybean products, over 20 plant expansions or new facilities have been announced recently in the U.S. to increase annual crushing capacity.

Capping or limiting feedstock eligibility at this point would undercut the need for the outputs from the industry expansion. The biofuels industry is gearing up to meet demand if the policy remains stable. Changing now would result in large losses to both the industry that is investing billions of dollars in new

¹ Lusk, J. L. (2022). *Food and Fuel: Modeling Food System Wide Impacts of Increase in Demand for Soybean Oil*. Purdue University. (https://ag.purdue.edu/cfdas/wp-content/uploads/2022/12/report_soymodel_revised13.pdf)

processing capacity and our future ability to decrease greenhouse gases through biofuels. If CARB wishes to spur advancements in reducing emissions from the fuel supply, then it must provide dependable policy.

ASA thanks Chair Randolph, members of CARB, and CARB staff for their ongoing efforts developing and updating California's LCFS program and holding this public meeting.