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California Air Resources Board
1001 "I" Street
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Via electronic submission

Re: Potential Changes to the Low Carbon Fuel Standard

Dr. Laskowski:

The American Soybean Association (ASA) and the National Oilseed Processors Association (NOPA) appreciate the opportunity to submit comments in response to the California Air Resources Board's (CARB) public workshop on "Potential Changes to the Low Carbon Fuel Standard."

ASA represents approximately 500,000 American soybean farmers on domestic and international policy issues important to the soybean industry and has 26 affiliated state associations representing 30 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.

NOPA is a national trade association, representing the U.S. soybean, canola, flaxseed, safflower seed and sunflower seed, crushing industries. NOPA's membership represents 13 companies that are engaged in the processing of oilseeds for meal and oil that are further utilized in the manufacture of food, feed and renewable fuels. NOPA's member companies operate a total of five softseed and 60 soybean solvent extraction plants across 21 states.

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 emissions as a drop-in fuel that can be used in diesel engines on the road today.

The growth of the biodiesel industry, and more recently the renewable hydrocarbon diesel industry, has been spurred by strong federal and state-level policies that promote cleaner, lower-carbon energy sources. Increased utilization of biomass-based diesel over the past several years has had a marked impact on the rural economy. Domestic markets use over 2.5 billion gallons of biomass-based diesel which supports over 65,000 jobs—many in rural America—and creates an

economic impact of $17 billion[1]. Looking ahead, the biomass-based diesel industry is poised for significant growth with the expansion of renewable diesel. State climate programs play a critical role in supporting this industry through Low Carbon Fuel Standards policies.

Sustainable Soybean Farming

Soybean producers are already employing sustainability practices on their farms. Between 2000 and 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).[2] Considerable progress has already been made toward these goals, including exceeding the land use and energy use efficiency goals.

The soy industry sustainability benchmarks are based on decades of tracking across-the-board natural resource improvements that resulted from the adoption of conservation practices and increases in productivity. Over 35 years from 1980 to 2015, U.S. soybean production increased by 120 percent; and during the same period, environmental outcomes improved drastically—on a per bushel basis, land use by soy growers declined by 40%, soil conservation improved by 47%, irrigation water use improved by 33%, energy use decreased by 35%, and greenhouse gas emissions decreased by 45%.[3]

Additionally, most U.S. soybean farmers are following conservation regulations and farming practices outlined in the U.S. Soybean Sustainability Assurance Protocol (SSAP), an international marketing tool that uses a mass-balance approach to verify sustainable production at a national scale. SSAP is supported using data from the U.S. Department of Agriculture and is positively benchmarked against international soy sourcing guidelines which include requirements for soy growers to continuously improve their sustainability performance. In addition, soybeans certified under the SSAP-RED program qualify as biodiesel feedstock under the European Union's Renewable Energy Directive (RED). While SSAP serves as its foundation, the SSAP-RED specifically addresses the sustainability criteria of the RED with other management and compliance requirements.

Soy farmers are proud of sustainability achievements both on the farm and through the products produced using U.S. soy. Specifically, soy farmers celebrate the success of biomass-based diesel—not only for the new market opportunities the fuel created for farmers, but also for being able to grow a clean energy solution right in soybean fields. In fact, many soybean growers are using biomass-based diesel in their own farming equipment. Soybean oil represents about half of the feedstock used to produce biomass-based diesel 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

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[1] LMC International, 2019. *The Economic Impact of the Biodiesel Industry on the U.S. Economy.* National Biodiesel Board.

[2] American Soybean Association. *Industry Goals.* https://soygrowers.com/key-issues-initiatives/key-issues/sustainability/soy-industry-sustainability-goals/

[3] Field to Market: The Alliance for Sustainable Agriculture, 2016. *Environmental and Socioeconomic Indicators for Measuring Outcomes of On Farm Agricultural Production in the United States (Third Edition).*

current U.S. biomass-based diesel feedstock mix reduces emissions by approximately 74% compared to traditional petroleum diesel.[4]

Food & Fuel Considerations: Meeting Future Demand

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.

The necessity of low-carbon fuels in California's LCFS program has spurred a slew of announcements to open new renewable diesel production facilities. Despite the spate of renewable diesel facility announcements, overall use of soybean oil for biofuels did not increase in 2021 compared to 2020. Shortfalls in the production of vegetable oils not used in U.S. renewable diesel production helped to push up soybean oil prices during this period.

Developments in Crush Capacity

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.

As market demand for soybean oil increases, the price for soybean meal used in feed and food has consistently remained lower than it would be otherwise. It is important to note that these lower prices mean the soybean meal used for livestock animal feed translates to lower prices for consumers purchasing animal-based proteins as well as plant-based proteins.

Anticipation of increased renewable diesel production assisted by California's Low Carbon Fuel Standard are helping to spur changes in the U.S. soybean industry. First, domestic crushing capacity is expanding, with at least 18 announcements for plant expansions or new facilities that will increase capacity by approximately 25%. 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 that the food sector uses. Simply put, the processing industry is growing to provide soybean oil for continued food use and new fuel use.

Meeting Demands from other Markets

While soybean oil is a substantial share of the cost for renewable fuels, the same is not true for food. As a result, the latter is much less vulnerable to the cost since it is generally a small share of the overall cost. In fact, USDA in the July WASDE does not project a precipitous drop in the food use category for soybean oil. The 2021/22 and 2022/23 projected consumption both remain

[4] Wang, M., Elgowainy, A., et al, 2021. Summary of Expansions and Updates in GREET 2021. https://greet.es.anl.gov/publication-greet-2021-summary

below 2020/21 levels but above 2019/20 levels. This means that the U.S. is expected to consume more soybean oil for food this marketing year and next than just two years ago.

Additionally, U.S. food consumers are largely insulated from the variations in soybean oil prices. An analysis by Dr. Jayson Lusk, Director of the Center for Food Demand Analysis and Sustainability at Purdue University, found that a 1% increase in the price of crude soybean oil would be associated with a 0.0034% increase in the price of bread, a 0.0048% increase in the price of pasta and a .0154% increase in the price of American cheese.[5] In other words, a doubling of soybean oil prices would only increase the retail price of bread by about one-third of one percent. For comparison, the year over year increase in overall food inflation between June 2022 and June 2021 was 10.4%. Not only has food use of soybean oil remained robust, but price changes in the raw commodity have almost no translation to the price of food.

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. As stated above, according to trade estimates the U.S. is on track to increase soybean crushing capacity by approximately 25% between 2022 and 2026. Approximately 18 plant expansions or new facilities have been announced in the U.S. within the past year to increase annual crushing capacity in response to growing domestic and global demand for soybean products.

Capping or limiting feedstock eligibility at this point would undercut the need for the outputs from the industry expansion. The industries are gearing up to meet the demand if the policy will remain stable. Changing now would result in large losses to both the industry which is investing billions of dollars in new processing capacity and the 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.

Conclusion

The U.S. soybean industry has been a long supporter and partner in the development of cleaner, lower-carbon fuels and relies on strong federal and state low-carbon fuel policies, which are critical to the expansion of the oilseed sector more broadly. A vibrant oilseed sector, and the biofuels produced from oilseeds, is critically important to lowering the GHG emissions in the United States' and California's fuel supply. Efforts to undercut current policies regarding eligible feedstocks will immediately translate to lower soybean prices at a time when farmers are facing significant increases in costs, which are already compressing margins. As it stands now, the current California Low Carbon Fuel Standard has allowed market expansion to occur which will provide for increased soybean oil for domestic users moving into the future. This soybean oil expansion will also unlock additional, low-cost meal for years, which is the primary component of soybeans that is part of the food supply chain.

ASA and NOPA are eager to continue working with CARB to support the role of agriculture in diversifying the fuel supply and supporting cleaner fuel options in California and beyond. On behalf of America's soybean farmers and processors, we appreciate this opportunity to comment,

[5] Lusk, J. L. (2021). *Soybean Oil Prices and Retail Food Costs.* Center for Food Demand Analysis and Sustainability, Purdue University, for the United Soybean Board.

and look forward to collaborating with CARB and other relevant stakeholders to enact policies that will address climate change while expanding the use of soy-based biofuels and market opportunities for soybean farmers.

Sincerely,

Brad Doyle
President
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Thomas A. Hammer
President
NOPA