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California Air Resources Board
1001 “I” Street
Sacramento, CA 95814

Via electronic submission

Re: Proposed Low Carbon Fuel Standard Amendments

California Air Resources Board Staff:

Thank you for the opportunity to comment on the California Air Resources Board’s (CARB) Proposed Low Carbon Fuel Standard Amendments, issued on October 1, 2024.

Corteva Agriscience is a leading, publicly traded, pure-play agriculture technology company headquartered in Indianapolis, Indiana, and with meaningful footprints in many other states, including Iowa, Michigan and Delaware. Founded on a century of breeding and scientific expertise, we develop innovative seed and crop protection products and solutions with the goal of helping farmers around the world increase yields, drive profitability and strengthen sustainability. Corteva invests nearly $4 million every single day into research and development. As such, we work with a variety of collaborators, including universities, small businesses and start-ups, to advance our own innovation and give them access to ours, while also equipping them to provide consumers with a wider range of safe, healthy and nutritious food options. Taken together, these products are critical components to a resilient agricultural system that enables food and energy security.

We support the state of California’s move to find lower-carbon sources of fuel and believe that agriculture can and must be part of the solution, including through wider adoption of biofuels, which by their nature are renewable and lower-carbon than traditional fossil fuels.

One way our company is leading the way is through the cultivation of winter canola across several states in the U.S. mid-South. Together with Bunge and Chevron Renewable Energy Group, we are working to build the necessary seed and processing supply chain to converting this winter canola into renewable diesel and sustainable aviation fuel, which would be compatible with existing combustion engines and provide a more sustainable option for aviation and diesel fleets. Importantly, it will also support farmers: because winter canola is a double crop, planted when the ground would otherwise lie fallow, farmers can use it as a source of additional revenue while ensuring the sustainability of their operation by reducing greenhouse gas emissions and protecting soil health.

As CARB reviews proposed amendments to the Low Carbon Fuel Standard, we encourage you to consider the following key points:

1. **Remove the unnecessary cap on certain feedstocks**: In absence of a compelling rationale, the cap on certain biofuel feedstocks is unnecessary . The fuels subject to the cap will naturally be phased out of the program by the declining carbon intensity targets; therefore these feedstocks do not need to be made subject to the proposed 20% cap as defined in § 95482(i).

2. **Incentivize domestic production and supply**: The ability of the U.S. and Canada to provide a ready and abundant source of verified, domestically produced, oilseed-based feedstock reduces the need of relying upon imported feedstocks – in addition to the benefit to our domestic economies, it also reduces the risk of feedstocks derived from palm oil or palm derivatives. Relying on domestic sources would also negate the need for costly verification procedures in order to comply with Section 95482(f) because no palm oil or palm derivatives are produced in the U.S. or Canada. Unlimited inclusion of domestically produced biofuel feedstocks – such as soybean oil, canola oil, and sunflower oil, as proposed in Section 95482(i), will help meet the requirements of Section 95482(f), which specifies the ineligibility of transportation fuel derived from palm oil or palm derivatives for LCFS credit generation.

3. **Include winter canola as a key feedstock**: Winter canola is an emerging crop with a materially different emissions and land use profile. CARB should recognize that intermediate oilseed crop feedstock sources such as canola, grown as a second crop, provide multiple sustainability benefits to the environment in addition to its value as a low-carbon-intensity feedstock (source: Cover Crops for Climate Resilience | USDA Climate Hubs). Specifically, they:
    a. Store carbon in the soil;
    b. Reduce soil erosion and runoff;
    c. Increase soil organic matter;
    d. Reduce weeds, pests, and disease pressure;
    e. Provide habitat for pollinators and wildlife;
        i. Winter canola and other intermediate crops provide early forage resources for pollinators (source: Using pennycress, camelina, and canola cash cover crops to provision pollinators - ScienceDirect)

    CARB should recognize that the intermediate oilseed crop feedstock sources such as winter canola that is grown as a second crop are grown on land that would otherwise be fallow during the intermediate growing season. Production of biomass-based diesel feedstock in these systems is effectively adding "virtual acres" to the overall acreage pool without displacing other crops or changing land use in other parts of the globe. Therefore, the use of intermediate oilseed crop feedstock sources - such as canola grown as a second crop - reduces the potential for land use change. As these oilseed crops are crushed for oil feedstock, the meal produced as a co-product increases the available supply of vegetable protein meal, such as that used in California's dairy and other livestock industries, thereby reducing the economic incentive for land use change.

    As such, winter canola has the potential to be a key feedstock crop for renewable fuels; its adoption is just beginning to increase. Inclusion in CARB is a key step to support this low carbon-intensity crop as an alternative feedstock not subject to the 20% cap. It is important that CARB clarify inclusion of winter canola – and at the same time, ensure that no alternative feedstocks are included. As CARB is updated to add sunflower oil, we also recommend adding the following definition to § 95481(a):

    f. "Primary-Crop Canola" means canola that is the crop produced during that geographical area's main growing season. Primary-crop canola does not include canola that is grown as a second crop or as a cover crop.

4. The term "Primary-Crop Canola" should then be incorporated into § 95482(i) as follows:

a. Biomass-based diesel produced from soybean oil and primary-crop canola oil is eligible for LCFS credits for up to twenty percent combined of total biomass-based diesel annual production reporting, by company. Any reported quantities of biomass-based diesel produced from soybean oil and primary-crop canola oil in excess of twenty percent on a company-wide basis will be assigned a carbon intensity equivalent to the carbon intensity benchmark shown in Table 2 in Section 95484(e) for the applicable data reporting year, or the certified carbon intensity for the associated fuel pathway – whichever is greater. For companies with biomass-based diesel pathways certified prior to the effective date of the regulation and for which the percentage of biomass-based diesel produced from soybean oil and primary-crop canola oil was greater than 20 percent of combined reported biodiesel and renewable diesel quantities for 2023 LCFS reporting, this provision takes effect beginning January 1, 2028.

5. Table 6 should be updated to indicate that the land use change value listed applies to Primary Crop Canola Biomass-based Diesel.

Once again, we appreciate the opportunity to comment on the proposed Low Carbon Fuel Standard Amendments and look forward to supporting your efforts to implement an effective LCFS program. We remain at your disposal to further elaborate or answer questions about any item discussed in this document.

Sincerely,

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Senior Director and Growth Leader, Biofuels
Corteva