



August 21, 2024  
The Honorable Liane M. Randolph, Chair  
California Air Resources Board

Comment Submitted Electronically

RE: Bayer Crop Science's Comments Relating to 15-Day Changes

Dear Chair Randolph:

Bayer Crop Science (Bayer) appreciates the current and historic efforts by the California Air Resources Board (CARB) to reduce the greenhouse gas (GHG) emissions from transportation through the implementation of the State's Low Carbon Fuels Standard (LCFS). Bayer supports the continued evolution of the LCFS through the CARB rulemaking process. Of particular interest to Bayer is the production of biofuels in the most sustainable manner including increasing GHG reductions through the use of lower carbon intensity (CI) crop varieties, climate smart agriculture (CSA), and the utilization of cover crops and crop rotations.

The recent modifications proposed by CARB to the LCFS regulations (the "15-Day Changes") add stringency and oversight to the LCFS program and have the potential to facilitate more precise and accurate CI analysis. Unfortunately, certain aspects of the 15-Day Changes leverage this precision only to the detriment of biofuel CI scores rather than authorizing the adjustment of CI scores favorably or unfavorably depending on real-world performance. We encourage CARB to continue to embrace the fundamental LCFS principles of technology-neutrality and science-based performance measurement rather than introducing CI bias into the LCFS program structure.

In this final stage of the LCFS rulemaking, CARB has the opportunity to refine the proposed language of the 15-Day Changes so that the LCFS program will disincentivize less-sustainable biofuels **and incentivize more-sustainable biofuels**. Such an approach has the potential to expand and enhance the global sustainable fuels market and minimize the risk of unintended consequences at a time when the rapid phase down of petroleum-based fuels is an environmental imperative that has been codified into California law. The mandatory petroleum-based fuels phase-down triggers the imperative of rapidly scaling sustainable biofuels particularly in the hard-to-abate aviation sector.

To capture these benefits, we recommend the following refinements to the language of the proposed 15-Day Changes.

### **Recommended Modifications**

The specific changes necessary to establish a non-biased LCFS land use change provision are modest revisions to proposed §95488.3(d)(2). Bayer recommends that the provision as proposed in the 15-Day Changes be modified as follows: "(2) The Executive Officer may determine that no value in Table 6 is ~~conservatively~~ representative of a particular region/feedstock/fuel combination and assign a ~~more~~ conservative LUC value that is representative. Such determination must be based on the best available empirical data, including but not limited to satellite-based remote sensing data for land cover



monitoring, crop variety yields, and emission factors from the AEZ-EF model or carbon stock datasets. For feedstocks not listed in Table 6, the Executive Officer may determine and assign an appropriate LUC value based on empirical land cover data, crop yields, and emission factors.”

One noteworthy example that illustrates the type of GHG reductions that can be incentivized by the above modification is the distinction between Spring Canola and Winter Canola. Spring Canola is planted in early spring (May) and harvested around September and accounts for the majority of U.S. canola production in northern states.<sup>1</sup> Winter Canola, on the other hand, is planted in the fall (September), overwinters, and is harvested in June. In general, Winter Canola has a 20 to 30 percent greater yield potential than Spring Canola due to a longer grain filling period and less competition from summer annual weeds and insect pests.<sup>2</sup>

Bayer is making investments in Winter Canola and Domesticated Pennycress because these crops can serve as valuable biomass feedstocks, fulfilling demand for lower carbon intensity (“CI”) feedstocks for Renewable Diesel and Sustainable Aviation Fuel (“SAF”). These crops also deliver ecosystem benefits such as carbon sequestration, improved soil health and socio-economic benefits for farmer communities.

### **Sustainability Certifications:**

Bayer commends California Air Resource Board’s efforts to ensure sustainability practices and reduce land use change. Bayer recommends that to most effectively achieve California’s goals, it will be critical for CARB to work with stakeholders as CARB interprets, implements, provides further guidance, and phases in the sustainability and certification requirements.

We recommend that CARB align LCFS requirements to the greatest extent possible with voluntary programs like U.S. Department of Agriculture’s (“USDA”) Conservation Stewardship Program (“CSP”) and Environmental Quality Incentives Program (“EQIP”) administered by the Natural Resources Conservation Service (“NRCS”). It should be noted that while programs such as International Sustainability and Carbon Certification (“ISCC”) offer credible verification standards and approval processes, these programs are highly burdensome for farmers, and the audits impose significant administrative cost on farmers.

American growers have a broad range of climate-smart opportunities that reflect regional variation, crop selection and physical landscape characteristics. A 2024 literature review in “Mitigation and Adaptation Strategies for Global Change” recommends, “Policymakers should prioritize flexibility in policy frameworks, allowing for adaptation to the distinct characteristics of various agricultural landscapes. This flexibility will enable the effective customization of CSA practices, ensuring their alignment with the specific challenges and opportunities faced by farmers in diverse regions.”<sup>3</sup>

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<sup>1</sup> *U.S. Canola Production*, U.S. Canola Association, <https://www.uscanola.com/crop-production/spring-and-winter-canola/>.

<sup>2</sup> Kan. St. Univ. Agric. Experiment Station and Coop. Extension Serv., *Great Plains Canola Production Handbook* 1, June 2018, [https://bookstore.ksre.ksu.edu/download/great-plains-canola-production-handbook\\_MF2734](https://bookstore.ksre.ksu.edu/download/great-plains-canola-production-handbook_MF2734).

<sup>3</sup> *Id* at 22.



### **Soy & Canola 20% Cap**

While Bayer recognizes the intent behind the 20% cap on soy and canola proposed by CARB in the 15-day package, and the importance of ensuring other state markets have feedstock availability, we urge a reevaluation of the unintended consequences of such a cap. Limiting the use of renewable, plant-based biofuels made from crops grown on existing cropland in North America will result in greater reliance on foreign feedstocks of less certain origin and inhibit the ability to reach emission reduction goals. Further, because crop-based biofuels are already subject to ILUC and indirect emissions analysis, this cap would be redundant. We urge reconsideration of this approach, especially given CARB's own analysis presented at the April 2024 workshop, which acknowledged that the diesel pool in California cannot be entirely replaced by electrification and such a cap would result in *more* fossil fuel usage, undermining California's emission progress.

### **About Bayer Crop Science**

Bayer is a global enterprise with core competencies in the life science fields of health care and crop science. Bayer's products and services are designed to help people and the planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population. We are deeply committed to reducing emissions aggressively across our own enterprise and enabling our customers to reduce emissions throughout the agriculture sector. Bayer is pioneering farming solutions that accelerate the decarbonization of the food, fuel and agricultural supply chain and is supportive of policy development that recognizes the potential of climate-smart agriculture as an effective lever for achieving these goals.

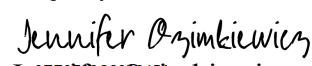
### **Conclusion**

CARB is a respected international leader in developing and implementing programs to reduce GHG emissions across the California economy. The inclusion of CSA practices in the LCFS will expand the State's leadership throughout the country, especially in the Midwest where a large portion of the corn and soy are grown that provide feedstocks for LCFS fuels and also yield important fuel and feed products.

Bayer appreciates the opportunity to share its perspective and expertise to raise awareness of the science and innovation enabling our customers to grow crops that contribute significantly to clean transportation fuel programs and advance the climate change goals of both California, and the United States. We thank CARB for this opportunity to offer these comments and look forward to continued collaboration to implement policies and strategies that further reduce emissions from the transportation sector.

Sincerely,

Signed by:

  
Jennifer Ozimkiewicz

Senior Vice President, Global Soybean and Biofuels Strategy Head  
Bayer AG - Crop Science Division