



Don Gilstrap
Manager, Fuels Regulations

February 19, 2024

Rajinder Sahota
Deputy Executive Officer – Climate Change and Research
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Ms. Sahota:

Re: Crop-based Fuels Guardrails

Chevron appreciates the opportunity to review and comment on the subject Low Carbon Fuel Standard rulemaking proposal.

Chevron is a major refiner and marketer of petroleum products and renewable fuels in the state of California and a regulated party under the Low Carbon Fuel Standard (LCFS). Chevron, through its Renewable Energy Group subsidiary, is an international producer of lower carbon intensity fuels with a global integrated procurement, distribution, and logistics network and 11 biorefineries in the U.S. and Europe. to help California reduce transportation greenhouse gas emissions particularly in the hard-to-electrify heavy-duty sectors. As the second largest domestic producer of biodiesel and renewable diesel, our company uses waste fats, oils, and greases as well as virgin crop-based feedstocks.

Chevron is submitting multiple letters on key topics under the 2024 LCFS rulemaking. Following are our comments on the crop-based fuels guardrails proposed.

Key Messages

- Eligibility for RFS credit generation is a reliable alternative to the proposed LCFS sustainability criteria.
- Data related to land use in the United States contradicts the theoretical concerns voiced by advocates for a crop-based fuels cap.
- Indirect land use factors are already in place to address theoretical concerns about international impacts.

A Cap on Crop-based Fuels is Not Needed

Chevron appreciates that the proposal does not seek to implement an unnecessary and over-reaching cap on crop-based fuels. There are effective measures already in place that provide for proper balance in feedstock usage. These measures include the federal Renewable Fuel Standard (RFS) and the new tax incentive structure in the Inflation Reduction Act, that will transition the federal biodiesel tax credit from the existing \$1/gal for all eligible biodiesel to a sliding scale incentive based on the fuel's carbon intensity. Further, the LCFS already provides appropriate 'guardrails' through life cycle analysis that incorporates direct and indirect land use



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change (LUC) factors in products' carbon intensity (CI) scores. These LUC scores provide a conservative view of the potential impact from the use of agricultural feedstocks in fuel production. Illustrating the conservative nature of these factors, Figure 1 below shows that potential land-use change impacts have been declining for decades.

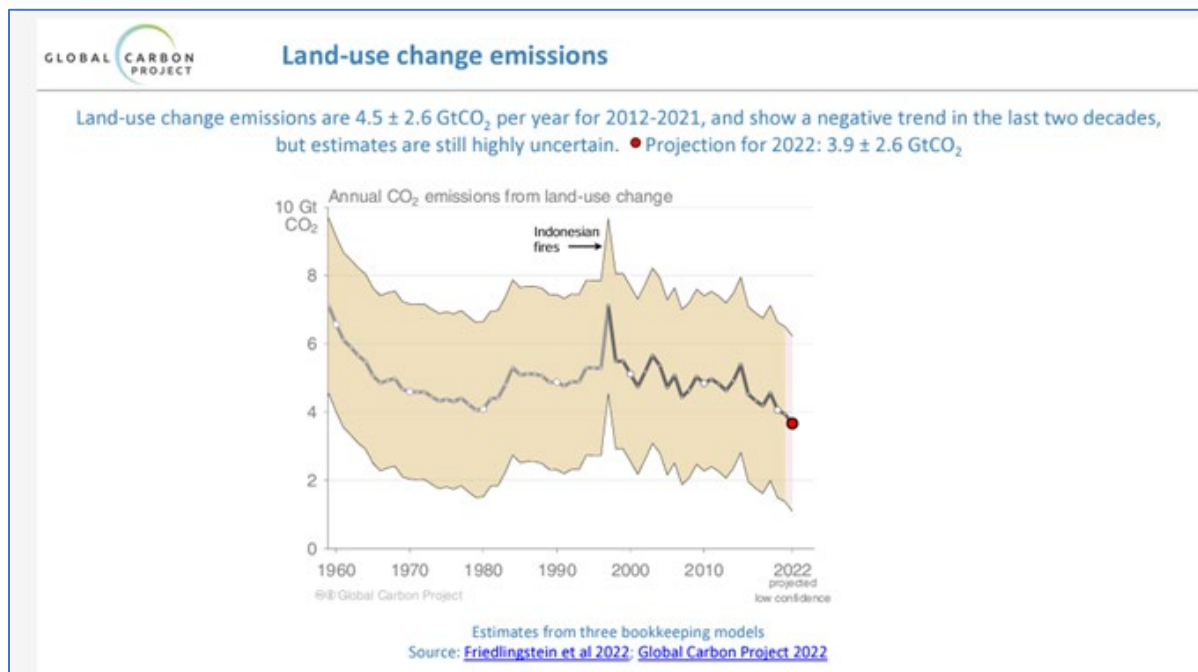


Figure 1, ¹

The RFS Includes Traceability Requirements

It is important to note that the federal Renewable Fuel Standard (RFS) offers safeguards against potential adverse effects owing to land use change. Efforts to include similar traceability requirements in the LCFS would be duplicative of federal requirements. The RFS requires that land must have been in productive use as of December 19, 2007, to demonstrate that land use has not changed because of the RFS. Biofuel producers sourcing crop-based feedstock in the U.S. and Canada are not required to submit traceability documentation to the point of origin so long as the total crop acreage in a given year does not exceed total acreage determined in 2007 (the first year of compliance for the RFS). In setting the annual renewable volume obligations, U.S. Environmental Protection Administration (EPA), in collaboration with the U.S. Department of Agriculture (USDA), determines the amount of crop acres each year. In no year since the RFS was established has crop acreage exceeded that of 2007. The RFS requires “map and track” traceability requirements for biofuel producers sourcing crop-based feedstocks cultivated outside of the U.S. and Canada. Crop-based biofuels that participate in the LCFS also participate in the RFS and would be subject to federal traceability.

¹ https://globalcarbonbudget.org/wp-content/uploads/GCP_CarbonBudget_2022_slides_v1.0.pdf



In addition, the RFS prohibits the use of certain feedstocks and fuels derived from these feedstocks from participating in the program. The RFS defines what feedstocks may be considered sources of renewable biomass and what fuels derived from renewable biomass may be eligible to participate. Through this process, fuels derived from certain feedstocks, such as palm oil and palm oil derivatives, are ineligible to generate biomass-based diesel RINs. Relying on the federal definition of renewable biomass, and the eligibility of fuels derived from these feedstocks to participate in the program, would preclude the need for an exhaustive list of eligible feedstocks under the LCFS program.

If CARB implements any new guardrails, then to avoid conflicts with the national program, any fuels participating in the RFS program should be exempted.

Specified Source Feedstock Attestations Are Unnecessary

Both the RFS and LCFS currently require significant documentation for feedstock sourcing, including detailed chain-of-custody records, in addition to third-party audits. The RFS specifically requires point of origin documentation for these feedstocks. Additional attestation requirements are duplicative.

As written, these new requirements have the potential to add considerable burden to feedstock supply chains. It is not clear which feedstock producers, distributors, or users would be required to maintain attestations or which operating conditions require them. It should also be made clear that this would be a recordkeeping requirement only and not akin to a product transfer document. We urge CARB to forego these added requirements or at least work more closely with feedstock producers and suppliers to clarify the purpose and nature of these new requirements.

U.S. Crop Acreage is Declining

There is little evidence that biofuels policies are linked with land use change in the United States. Recent USDA research indicates that total crop acreage has declined since 2007, illustrating that land use change owing to biofuel production is not occurring. Modest expansion of corn and soybean acres has been facilitated by the conversion of hay and wheat acres and land coming out of the conservation reserve program.²

² <https://www.epa.gov/system/files/documents/2022-03/biofuel-ghg-model-workshop-cropland-patterns-2022-02-28.pdf>



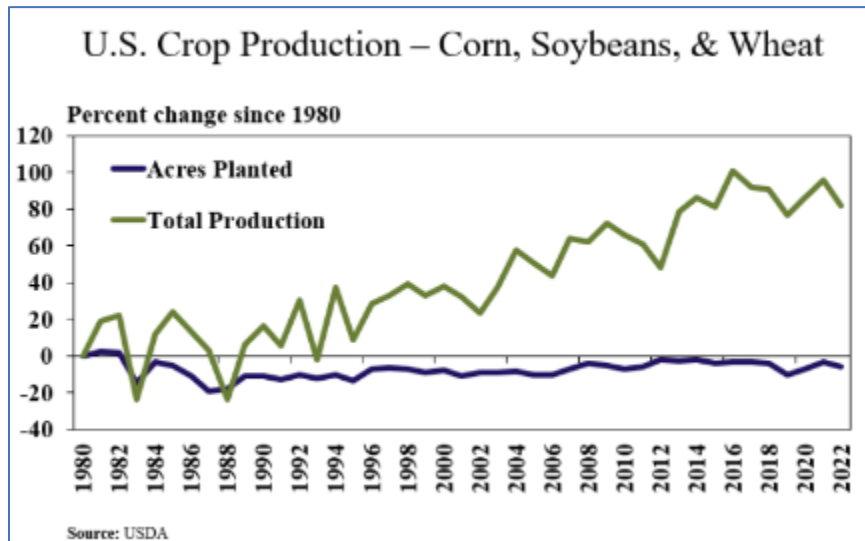


Figure 2 ³

The 2022 Census of Agriculture recently released by USDA concludes that the U.S. has lost 21 million acres between 2017 and 2022 and lost 63 million acres since 1997. According to America’s Farmland Trust, urbanization is a leading cause of lost crop acreage in the U.S. ⁴ Meanwhile, yields from U.S. soybean cultivation (the leading crop-based feedstock used to produce biomass-based diesel) have increased, indicating that more crops may be produced for a given area of land. According to the USDA, soybean yields, measured by bushels per acre, expanded by 35% between 1989 and 2020.⁵ In summary, the United States grows more crops on less land every year.

³ <https://www.nass.usda.gov/AgCensus/>

⁴ <https://theworld.org/stories/2020-08-07/us-lost-11-million-acres-farmland-development-past-2-decades>

⁵ <http://soystats.com/u-s-yield-production-yield-history/>



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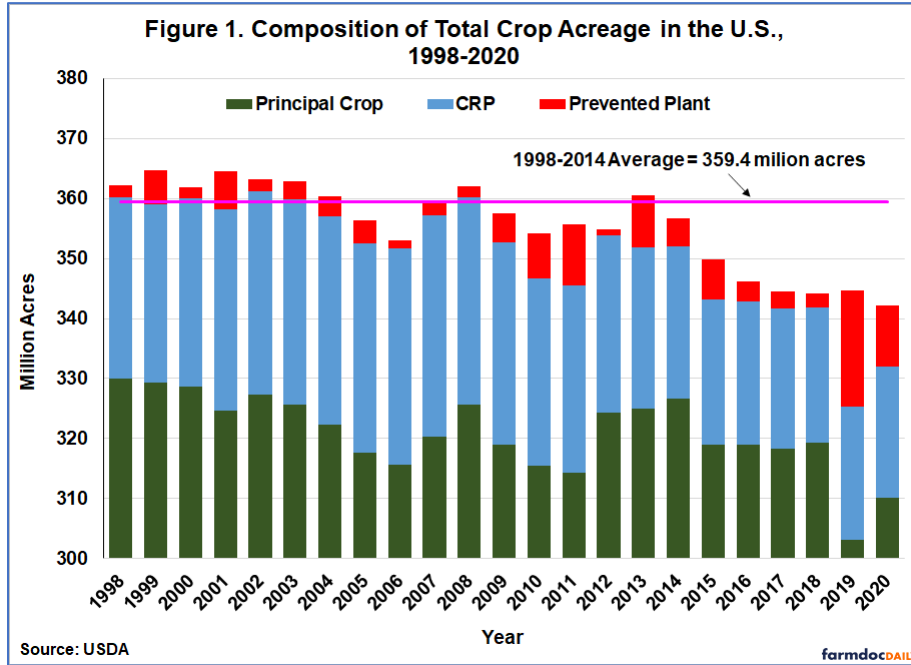


Figure 3 ⁶

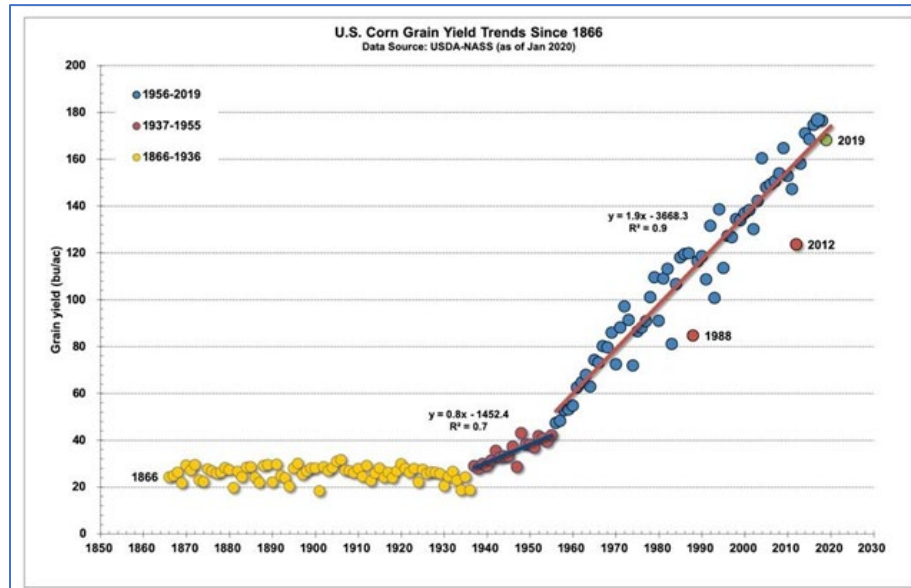


Figure 4, ⁷

⁶ <https://farmdocdaily.illinois.edu/2021/06/estimating-total-crop-acres-in-the-us.html>

⁷ <https://twitter.com/AlecStapp/status/1615384716361728000/photo/1>



Our Family of Brands

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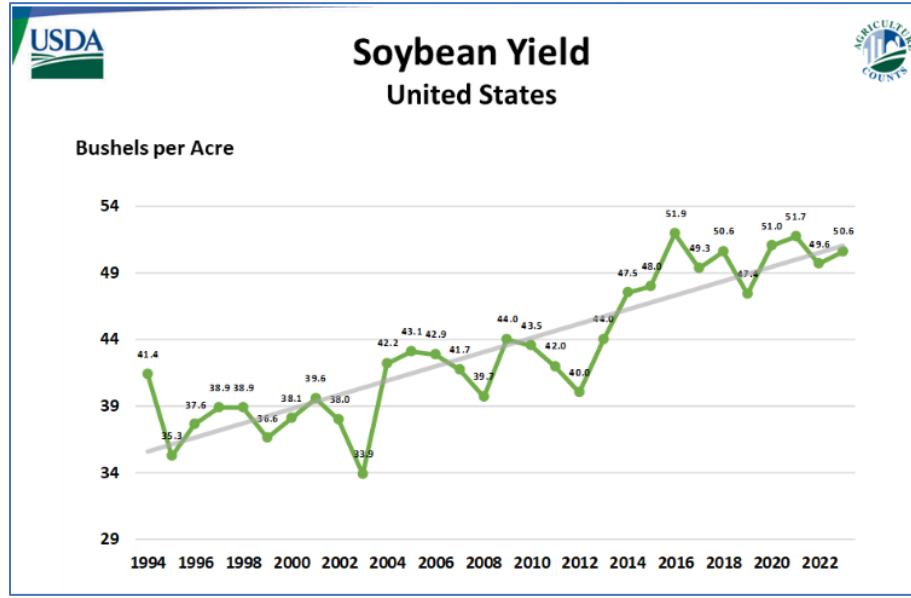


Figure 5,⁸

Conclusion

Additional traceability requirements are unnecessary under the LCFS program. As nearly all crop-based biofuels produced or imported into the U.S. participate in the federal RFS program, the aggregate compliance approach under the RFS offers effective assurance that biofuels policy is not linked to land use change. This approach also requires traceability requirements for feedstock sourced outside of the U.S. and Canada and imported biofuels produced from these feedstocks. Data provided in these comments demonstrates that crop land in the U.S. is declining owing largely to urbanization while yields on many crops are expanding. Thanks to agricultural innovations and smart farming practices we can grow more feedstocks on a diminishing amount of land to meet both biofuel and food demands.

Sincerely,

⁸ [USDA - National Agricultural Statistics Service - Charts and Maps - Soybeans: Yield by Year, US](https://www.nass.usda.gov/charts/maps/soybeans/yield_by_year_us)