RENEWABLE FUELS ASSOCIATION

March 18, 2025

U.S. Department of Agriculture
Office of Energy and Environmental Policy
1400 Independence Ave., S.W.
Washington, DC 20250

Submitted Electronically via regulations.gov

Re: Docket ID USDA-2024-0003, Technical Guidelines for Climate-Smart Agriculture Crops Used as Biofuel Feedstocks

The Renewable Fuels Association (RFA) appreciates the opportunity to provide these comments to the USDA Office of Energy and Environmental Policy on the interim rule, Technical Guidelines for Climate-Smart Agriculture Crops Used as Biofuel Feedstocks.

RFA is the leading trade association for America's ethanol industry. Its mission is to advance the development, production, and use of fuel ethanol and co-products by strengthening America's renewable fuels industry and raising awareness about the benefits of renewable energy. Founded in 1981, RFA serves as the premier meeting ground for industry leaders and supporters. RFA's 300-plus members are working to help America become cleaner, safer, more energy secure, and economically vibrant.

This interim rule represents significant progress in following the science and empowering American agriculture. In addition to these comments, RFA looks forward to working with USDA, Department of Treasury, and other agencies to develop policies that empower farmers while stimulating investment and saving consumers at the pump.

Should USDA consider transitioning to a book-and-claim traceability approach? If so, how could USDA facilitate that transition?

RFA believes that book-and-claim traceability methodology will be necessary for the true success of the program. Although mass balance may be desirable in certain scenarios and a book-and-claim will require the development of additional systems, without a decoupled approach, the program will not reach its full potential. If the government were to require that physical commodities grown using CSA practices be rigidly tracked through the supply chain and delivered to biofuel production facilities, this could cause significant distortions in grain flows and

pricing. As a result, program participation and the associated emissions benefits would be limited unnecessarily.

Even certain mass-balancing approaches for tracking CSA feedstock could result in market distortions and unnecessary economic burdens that would likely deter farmers from pursuing the adoption of CSA and deter biofuel producers from sourcing CSA feedstock.

As noted in the attached white paper by Polaris Analytics and Consulting, "Grain is like water in that it flows on the path of least resistance." However, "[i]f 45Z guidelines require that CSA attributes remain connected to physical grain delivered to biofuel facilities, this will impact the flow of corn through the supply chain." Ethanol facilities that qualify for 45Z credits could afford to pay a substantial premium for CSA corn, which would "have unintended consequences of disrupting the corn supply chain that is set up to handle large volumes through a high output network that was planned, invested in, developed and operated over years and decades." The sourcing of low-CI corn by those facilities could involve transportation movements that are not typically done by rail, which would require a substantial number of truckloads involving higher costs and increased GHG emissions. At the same time, "Other market participants who transform corn into livestock feed or move it to the export market could lose out too and will have to increase the price of corn to compete with the ethanol plant, buy corn from other locations or modify their operations." Polaris concludes, "Instituting a decoupling of the physical corn bushel under a book and claim approach will preserve the integrity of the corn supply chain while incentivizing SAF production through certified CSA plans at the farm level."

To avoid these unintended consequences, RFA recommends that verified CSA attributes be decoupled from physical bushels of grain. The carbon reduction value associated with the CSA practices can be verified by a third party and offered for sale by the farmer as a separate instrument ("CSA certificates," perhaps) on a centralized registry. Those certificates could then be purchased by a biofuel producer using "book and claim" accounting, without regard to the geography or physical location of either the CSA farmer or the biofuel producer. "Book and claim" is a chain-of-custody model "in which the administrative record flow does not necessarily connect to the physical flow of material or product throughout the supply chain."[1]

When they are decoupled, the emissions reductions related to the CSA practices can be transferred separately from the farmer/grain supplier to the low-carbon fuel producer (i.e., the entity registered with IRS under 45Z) via a dedicated instrument ("CSA certificate"). In such a system, the buyer (fuel producer) and seller (CSA farmer or CSA grain supplier) need not be connected via a physical supply chain. The buyer "books" a specific quantity of CSA feedstock at the time of purchase and then "claims" the emissions reduction when calculating the emissions rate of their

[1] ISO 22095:2020

fuel. As a result, the buyer owns the emissions reduction benefits of the CSA feedstock without physically possessing the specific feedstock at their biorefinery. Still, it is the buyer's purchase of the CSA-related GHG reductions that incentivizes the farmer's adoption of CSA practices.

The following hypothetical example demonstrates how this approach would work in practice:

1. Prior to planting, the farmer declares that the following CSA practices will be used on 1,000 corn acres: reduced till, replacement of 50% synthetic N fertilizer with manure, 4R N application practices, and the use of renewable diesel in planting and harvesting farm machinery.
2. Throughout planting and harvesting, the farmer keeps detailed records of CSA practices and inputs (using recordkeeping requirements similar to those discussed in response to Question 15 above, and/or similar to those outlined in Appendix B of IRS Notice 2024-37).
3. At harvest, the farmer completes a legally binding attestation declaring that applicable CSA practices have been implemented according to relevant guidelines, as specified by USDA. The farmer harvests 200,000 bushels of CSA corn on the 1,000 acres.
4. At harvest, an unrelated third-party certification body (similar to those described in Appendix A of IRS Notice 2024-37) independently verifies the farmer's records and attestations.
    a. Upon successful verification, the unrelated third-party certifier issues a verified "CSA certificate" to the farmer, memorializing and validating the specific CSA practices employed for the production of 200,000 bushels of corn. Alternatively, the CSA certificate could represent the emissions reduction (metric tons of CO_2 equivalent) associated with the CSA practices applied to the 200,000 bushels, based on standard emissions reduction "proxy" values developed by USDA for each practice. At this point, the "CSA certificate" is decoupled from the physical feedstock (i.e., 200,000 bushels of corn). The farmer sells the physical quantity of corn to an unrelated entity (e.g., a feedlot or elevator) based on market-driven logistics, timing, and pricing fundamentals.
    b. The "CSA certificate" is a tradeable instrument that the farmer may sell to entities who wish to purchase and claim the emissions reductions benefits associated with farmer's CSA practices. The certificate would be offered for sale on a national "CSA registry," potentially managed by USDA or the Treasury (similar to EPA's management of the RIN trading platform). "CSA certificates" could potentially have a multiyear lifespan.
5. The ethanol producer (the registered entity under 45Z) purchases the verified "CSA certificate" off of the registry for 200,000 bushels of

corn from the CSA farmer at a price agreed upon by the ethanol producer and CSA farmer.

6. Upon purchase of the "CSA certificate," the farmer electronically transfers copies of the attestation and all other required records to ethanol producer for recordkeeping.
7. When calculating the emissions rate of transportation fuel under 45Z, the ethanol producer includes the emissions reductions associated with the CSA practices specified on the "CSA certificate" (using standard proxy factors for individual CSA practices, as discussed above).

Adopting a book-and-claim system for CSA would offer the following benefits:

- Eliminates the need for contracts for physical feedstock purchases between the CSA farmer and the ethanol producer.
- Allows farmers who are not in close physical proximity to ethanol, SAF, or other biofuel facilities to be rewarded for adopting CSA practices.
- Removes potential feedstock IP, rigid traceability, and chain-of-custody burdens on all supply chain entities, including intermediaries like commercial grain elevators.
- Allows the grain market to continue operating rationally and efficiently. Physical quantities of grain continue to flow efficiently and to natural buyers based on location, logistics, and other market-based factors.
- Allows the ethanol, SAF, or other biofuel producer to manage geographic risk that an adverse weather event (e.g., drought) near their facility would make them unable to obtain CSA feedstock—and, therefore, to deliver on low-carbon fuel volume commitments.

Book-and-claim systems have already been used successfully in other markets, most notably with green electricity ("renewable energy credits," or "RECs"), renewable natural gas, and even SAF introduced into multi-product pipelines. Book-and-claim is used in voluntary markets as well.

Finally, a book-and-claim approach as described above would not preclude parties from using contracts to secure the physical bushels of CSA grain (i.e., keeping the CSA attributes coupled with the physical grain) and using mass balancing if they instead preferred that chain-of-custody model. In this case, rather than decoupling the "CSA certificate" from the physical bushels, the two flows would remain coupled through the supply chain via mass balancing and the buyer would purchase both the grain and the CSA attributes from the same farmer/grain supplier.

What refinements to the USDA FD-CIC tool should USDA consider?

RFA appreciates the work that USDA's Office of the Chief Economist conducted in cooperation with Argonne National Laboratory to develop a USDA version of the Feedstock Carbon Intensity Calculator (USDA FD-CIC).

The two-step approach described on USDA's website for calculating county-level feedstock CIs in USDA FD-CIC is reasonable. As the department explains, "For the first step, USDA calculated the difference between the feedstock CI with CSA practices and the feedstock CI under business-as-usual farming practices…for each county in which the feedstock is produced. As a second step, USDA subtracted the difference calculated in step one from the national average baseline feedstock CI for each crop."[2]

However, USDA stated that an objective of the interim rule is to "facilitate farm producers' ability to participate in environmental service markets associated with biofuel production," and a concern is that making USDA FD-CIC available solely in Excel might limit participation. Crop producers will likely have varying levels of comfort with Excel, along with varying computer hardware and software availability and configurations. Accordingly, RFA recommends that USDA also develop and make available a web-based version of FD-CIC and allow producers to use either that or the Excel version.

USDA is considering the inclusion of additional Enhanced Efficiency Fertilizer (EEF) products, such as controlled release fertilizers, in the final rule. What data and research exist on the GHG impacts of EEF products when used on the crops defined in this rule?

As stated in the interim rule, "feedstock emissions account for approximately…55 percent of the direct emissions from producing corn ethanol." In turn, emissions associated with the use of nitrogen fertilizer account for roughly half of corn feedstock emissions. Therefore, to the extent practicable, it is important to incorporate emissions-reducing products and practices that have significant availability or adoption, such as controlled release fertilizers (CRFs).

Meta-analyses have demonstrated the ability of EEFs, including CRFs, to reduce nitrous oxide emissions. Moreover, the DAYCENT model was further developed by Gurung et al. to simulate the effects of CRFs and evaluate their nitrous oxide mitigation potentials.[3] Given that DAYCENT was used to derive the soil organic carbon values and nitrous oxide emissions estimates for USDA FD-CIC, the department should evaluate whether it can also be used to integrate the use of CRFs into FD-CIC. (The use of DAYCENT would likely be conservative, as Gurung et

[2] https://www.usda.gov/usda-fdcic

[3] Ram B. Gurung, Stephen M. Ogle, F. Jay Breidt, William J. Parton, Stephen J. Del Grosso, Yao Zhang, Melannie D. Hartman, Stephen A. Williams, Rodney T. Venterea, Modeling nitrous oxide mitigation potential of enhanced efficiency nitrogen fertilizers from agricultural systems, Science of The Total Environment, Volume 801, 2021, 149342, ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2021.149342.

al. noted that their reduction estimates were lower than or similar to those found by other researchers.)

USDA is considering including "reduced nitrogen application rate" as a CSA practice in the final rule. a. What implementation standards would be necessary to ensure a net GHG reduction from a "reduced nitrogen application rate" practice? b. What records and information would be necessary to verify a "reduced nitrogen application rate" practice?

As a practical matter, reducing the nitrogen application rate would lead directly to lower emissions of nitrous oxide, a potent greenhouse gas. Additionally, the Argonne National Laboratory version of FD-CIC allows users to enter their application rates of several forms of nitrogen fertilizer, so modifying USDA FD-CIC to incorporate this should be possible without undue effort. Still, it would be reasonable to require that at least a certain percentage reduction in the application rate be achieved in order for the crop involved to qualify as CSA.

The implementation standards for the No Fall Application Practice and Split In-Season Application in the interim rule were brief and straightforward, and that should be possible for a reduced nitrogen application rate as well. Similar to the other nutrient management practices, the development of a nutrient budget would be the first step in the implementation standard for a reduced application rate.

Likewise, recordkeeping requirements could follow along the lines of those for the other practices. Since USDA FD-CIC requires producers to enter information for all fields or management units within a farm, it could be configured for data to be entered regarding the application rates of the forms of nitrogen fertilizer that are used on each field, including rates on fields where non-CSA crops are grown.

RFA looks forward to working with USDA and other agencies on the implementation of these provisions. We thank you again for the opportunity to provide comments. If you have any questions, or need any additional information, please feel free to contact Jared Mullendore, Esq., Policy Counsel and Director of Government Affairs for the Renewable Fuels Association, at jmullendore@ethanolrfa.org or (202) 289-3835.

Sincerely,
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