

# BIOGENIC CO<sub>2</sub> COALITION

American Bakers  
Association

American Farm  
Bureau Federation

Corn Refiners  
Association

Enginuity  
Worldwide

National Cotton  
Council of America

National Cottonseed  
Products  
Association

National Corn  
Growers Association

National Oilseed  
Processors  
Association

North American  
Millers' Association

November 9, 2017

Dr. Madhu Khanna, Chair  
SAB Biogenic Carbon Emissions Panel  
EPA Science Advisory Board  
U.S. Environmental Protection Agency  
Ronald Reagan Building  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20004

Dr. Michael Honeycutt, Chair  
EPA Science Advisory Board  
U.S. Environmental Protection Agency  
Ronald Reagan Building  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20004

Re: Comments of the Biogenic CO<sub>2</sub> Coalition – Draft Report for Quality Review of EPA’s Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources (November 2014)

Dear Chairs:

The Biogenic CO<sub>2</sub> Coalition<sup>1</sup> is writing to express appreciation for the work of the SAB Biogenic Carbon Emissions Panel on the Draft Report for Quality Review dated June 2, 2017, concerning accounting of biogenic greenhouse gas emissions, which was the subject of the Science Advisory Board’s full board review at its recent August 29, 2017 meeting. These written comments supplement the Coalition’s public comments presented at the August 29 meeting. Despite the committed work of the Panel, the Coalition is greatly concerned that in over 6 years of review, the SAB has not recognized that biogenic CO<sub>2</sub> emissions from processing of short-rotation agricultural feedstocks are carbon neutral or *de minimis* from a scientific life-cycle perspective.

The stakeholders represented by the Biogenic CO<sub>2</sub> Coalition grow or process various agricultural crops and farm products (typically, short-cycle annual herbaceous crops and crop residues) or own/operate facilities that emit CO<sub>2</sub> directly from combustion, fermentation, or microbial wastewater treatment of agricultural biomass feedstocks. Coalition members are pioneering bioenergy technology and “green chemistry” approaches to produce food, fiber, consumer products, pharmaceuticals, bioplastics, biofuels, commercial chemicals, and a multitude of other bioproducts from crop-derived materials that generate CO<sub>2</sub> emissions from the

<sup>1</sup> The Coalition consists of the following stakeholders: American Bakers Association, American Farm Bureau Federation, Corn Refiners Association, Enginuity Worldwide, National Corn Growers Association, National Cotton Council of America, National Cottonseed Products Association, National Oilseed Processors Association, and the North American Millers’ Association.

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use or processing of agricultural feedstocks. Coalition members represent important sectors of an American bioeconomy that currently contributes nearly \$400 billion in economic activity, provides over 4 million American jobs, and is the leading source of domestic renewable energy in the United States.

Following its 2009 Endangerment Finding, which determined that elevated levels of greenhouse gas in the atmosphere constitute “pollution”, EPA announced it would undertake a detailed study of the scientific and technical issues associated with assessing biogenic CO<sub>2</sub> emissions. EPA reported the results of its study in the *Accounting Framework for Biogenic CO<sub>2</sub> Emissions from Stationary Sources*, completed in September 2011, which was charged to SAB and peer reviewed by the SAB Biogenic Emissions Panel resulting in a final peer review report published September 28, 2012. EPA subsequently revised the 2011 Framework in the *Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources*, completed in November 2014, which was again charged to SAB for peer review on February 25, 2015, and which is the subject of the June 2, 2016 Draft Report for Quality Review that is currently pending before the Panel.

Despite years of extensive review by the Panel and the full SAB, the process seems no closer to resolving the key scientific issue of practical importance, which is the recognition that biogenic CO<sub>2</sub> emissions from agricultural crop feedstocks do not contribute to increased levels of atmospheric greenhouse gas stocks, in contrast to burning fossil fuels. Much of this delay in this six-year saga seems attributable to complications surrounding the temporal aspect of accounting for biogenic emissions from combustion of woody biomass feedstocks and the associated regrowth period of long-rotation timber stands, as well as the complexities of quantifying indirect greenhouse gas emissions from land use change. However, these controversial and complex issues are simply not relevant to CO<sub>2</sub> emissions from processing of short-rotation crops such as corn, wheat, oilseed, and harvest waste, which are used to make a variety of food, bioproduct and energy outputs from feedstocks grown and harvested annually, often through fermentation processes using yeast and other microbial agents.

In light of the SAB’s decision at the August 29, 2017 meeting to further review and revise the Panel’s Draft Report, the Coalition would like to emphasize the following points that it sees as central to the issues pending before the Panel:

1. Separate Track. To the extent that a Biogenic Accounting Framework (BAF) has any regulatory purpose, the Coalition believes crop-based biogenic emissions ought to have a separate BAF track that recognizes that the so-called temporal issue (*i.e.*, what is the effect of CO<sub>2</sub> emissions in the atmosphere pending the long-term regrowth of woody biomass stocks) is not significant when applied to the short-term rotations of annual crops. The Panel should explicitly recognize that atmospheric residence time of CO<sub>2</sub> from short-rotation crops has a negligible or zero effect (or less than zero due to the fact that carbon is retained in the farm field) on radiative forcing as a matter of scientific fact.
2. Focus on Carbon Cycle. Although a separate BAF track for agricultural crops is appropriate, the Coalition believes that a BAF is unnecessary for agricultural crops

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altogether, due to the undisputed scientific fact that carbon released from processing of crop feedstocks is the same carbon that was sequestered from the atmosphere only months earlier by the farmers who grew the crops. It is scientifically indisputable that this carbon comes from the existing atmospheric carbon stock, and the cycling of carbon flows through annual plant growth and subsequent processing does not contribute “new” carbon to the atmospheric stock. Therefore, there is no regulatory purpose for having a BAF for short-cycle agricultural crops, and a BAF is simply an academic exercise with no practical value in the regulatory setting.

A BAF that looks beyond the carbon in the actual feedstock to consider indirect factors such as greenhouse emissions of land-use change is not appropriate when evaluating the core regulatory question of whether the carbon in agricultural feedstocks contributes to elevated levels of atmospheric greenhouse gas stocks (it clearly does not) for purposes of Clean Air Act regulation of emissions sources. Indirect factors in a life-cycle analysis would be relevant only if EPA were undertaking a comparison to the carbon footprint of other feedstocks, such as fossil fuels, in which case the BAF would also have to consider as a comparison the indirect greenhouse gas emissions from fossil fuel extraction, midstream processing and transportation. With regard to CO<sub>2</sub> emissions from a feedstock processing facility, the science is clear that the carbon in CO<sub>2</sub> emissions from agricultural processing facilities is the same carbon that farmers captured from atmospheric stocks only months earlier, and thus consideration of indirect emissions from associated activities is not relevant to regulation of the principal carbon flows from atmosphere to feedstock to processing facility.

3. Debunk Carbon Debt. The Panel ought to reject the concept, which has been advanced by a few vocal opponents of biomass, that crop-derived biomass owes a “carbon debt” to the atmosphere when harvested. To the contrary, at the time agricultural crop feedstocks are used, farmers have already sequestered carbon and removed CO<sub>2</sub> from the atmosphere by growing the crops months earlier, such that the subsequent release of carbon in the form of CO<sub>2</sub> from fermentation or combustion simply returns a portion of that carbon (usually less than is sequestered in the farm field in the first place) to the atmosphere. If there is a debt to be paid, it is the debt society owes to the farmer or landowner who has sequestered carbon from the atmosphere in the form of crop biomass, and has done so without payment for this beneficial ecosystem service. Although this issue is sometimes described as a “chicken or egg” dilemma, the Panel should explicitly state that the “chicken or egg” question is a policy choice and not a scientific tenet. At a minimum, the Panel should decline to endorse the concept of carbon debt in the context of short-rotation crops that sequester carbon annually through the direct action of farmers.
4. Biogenic Emissions Do Not Contribute to Elevated Levels of Greenhouse Gas. The essential purpose of EPA’s charge to the SAB is to advise EPA on the regulation of CO<sub>2</sub> emissions from biomass feedstock processing facilities under the Clean Air Act. EPA has defined “pollution” in its 2009 Endangerment Finding as “elevated” levels of greenhouse

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gases -- not all greenhouse gases. So that the Panel and EPA do not lose sight of that fundamental premise, the SAB should recognize that the carbon in CO<sub>2</sub> that is released from short-rotation biomass feedstock when fermented, combusted, or otherwise used comes from a fast-replenishing terrestrial stock and has no net effect on greenhouse gas concentrations in the atmosphere over any meaningful temporal period, whereas fossil fuel carbon is taken from a geological stock and introduced into the atmospheric stock as an additional greenhouse gas input that arguably contributes to elevated levels of greenhouse gases over any temporal period. It is important that the SAB does not bog down in the intricacies of a BAF accounting system only to lose sight of the core principal that carbon from agricultural feedstocks is part of the atmosphere-to-farm field carbon flow and does not add new carbon stocks that would “elevate” global CO<sub>2</sub> levels.

The undersigned associations appreciate the opportunity to comment on the Panel’s work. If you have any questions, please contact John Bode, Chair of the Biogenic CO<sub>2</sub> Coalition, at (202) 534-3498 or [JBode@corn.org](mailto:JBode@corn.org).

Respectfully submitted,

**American Bakers Association**

**American Farm Bureau Federation**

**Corn Refiners Association**

**Enginuity Worldwide**

**National Corn Growers Association**

**National Cotton Council of America**

**National Cottonseed Products Association**

**National Oilseed Processors Association**

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## Biogenic CO<sub>2</sub> Coalition Members

**American Bakers Association (ABA)** is a national association that represents the interests of bakers before the U.S. Congress, federal agencies, and international regulatory authorities. ABA advocates on behalf of more than 700 baking facilities and baking company suppliers.



**American Farm Bureau Federation (AFBF)** is an independent, non-governmental, voluntary organization governed by and representing farm and ranch families united for the purpose of analyzing their problems and formulating action to achieve educational improvement, economic opportunity and social advancement and, thereby, to promote the national well-being.



**Corn Refiners Association (CRA)** is the national trade association representing the corn refining (wet milling) industry of the United States. CRA and its predecessors have served this important segment of American agribusiness since 1913. Corn refiners manufacture starches, sweeteners, corn oil, bioproducts (including ethanol), and animal feed ingredients.



**Enginuity Worldwide** makes an engineered solid biomass fuel, using agricultural residues and woody wastes as the feedstocks, that can be used to co-fire with coal in power plants to produce base load energy. Using carbon neutral farm-based biomass provides an immediate carbon benefit that can help power companies comply with their GHG reduction targets.



**National Cotton Council of America (NCC)** aims to ensure the ability of all U.S. cotton industry segments to compete effectively and profitably in the raw cotton, oilseed and U.S.- manufactured product markets at home and abroad. NCC serves as the central forum for consensus-building among producers, ginners, warehousemen, merchants, cottonseed processors/dealers, cooperatives and textile manufacturers. The organization is the unifying force in working with the government to ensure that cotton's interests are considered.



**National Corn Growers Association (NCGA)** represents more than 40,000 dues-paying corn farmers nationwide and the interests of more than 300,000 growers who contribute through corn checkoff programs in their states. NCGA and its 48 affiliated state organizations work together to create and increase opportunities for corn growers.



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**National Cottonseed Products Association (NCPA)** is an organization of firms and individuals engaged in the processing of cottonseed and the marketing of cottonseed products, as well as cottonseed. These include oil mills, refiners, product dealers and product brokers.



**National Oilseed Processors Association (NOPA)** is a national trade association that represents 13 companies engaged in the production of food, feed, and renewable fuels from oilseeds, including soybeans. NOPA's member companies process more than 1.8 billion bushels of oilseeds annually at 65 plants located in 21 states throughout the country, including 59 plants that process soybeans.



**North American Millers' Association (NAMA)** represents millers of wheat, corn, oats and rye in the US and Canada. NAMA members take the raw grain and, through grinding and crushing, create flour and other products that are used to make such favorite foods as bread, pasta, cookies, cakes, and snack foods.

