

Seth Meyer, Ph.D.  
Chief Economist, Office of the Chief Economist  
United States Department of Agriculture  
Room 112-A, Whitten Federal Building  
1400 Independence Ave SW, Washington, DC 20250

Re: Docket Number: USDA–2021–0003

April 29, 2021

Dear Dr. Meyer:

The farmers, ranchers, agricultural retailers, cooperatives, researchers, scientists, seed producers, and technology developers represented by the organizations signed below appreciate the opportunity to provide input for the United States Department of Agriculture’s (USDA) Climate-Smart Agriculture and Forestry Strategy. We recognize that this effort at collecting information from agriculture and forestry stakeholders originated from the “[Executive Order on Tackling the Climate Crisis at Home and Abroad.](#)” The Executive Order stated: “America’s farmers, ranchers, and forest landowners have an important role to play in combating the climate crisis and reducing greenhouse gas (GHG) emissions, by sequestering carbon in soils, grasses, trees, and other vegetation and sourcing sustainable bioproducts and fuels.” We agree and further state that American agriculture is already at the forefront of global sustainability. We appreciate USDA seeking stakeholder input on this complex issue and allowing us the opportunity to provide suggestions for ways that agriculture can deliver benefits beyond our current high standard.

Americans today have access to one of the safest, most diverse, and most affordable food supplies in history, thanks in large part to the efficiency, productivity, and innovation of U.S. agriculture enabled by agricultural biotechnology, alongside the United States’ robust science- and risk-based regulatory system. As organizations that embrace the use of biotechnology in plant, animal and microbial applications and recognize the many benefits biotechnology has enabled American agriculture to achieve, we want to underscore that agricultural biotechnology needs to be a part of any climate change discussion. Agriculture has achieved notable and well documented environmental improvements through the adoption of crop varieties improved through biotechnology. Existing genetic innovations have improved soil health and greatly decreased GHG emissions by enabling improved tillage practices and limiting the number of passes required through the field; while enzyme and microbial additives to animal feed have increased the nutritional value of feed and reduced emissions from livestock. Nitrogen-fixing bacteria and other soil microbiome innovations improve crop efficiency, reduce conventional inputs, and promote soil carbon sequestration. To quantify these benefits, a 2020 study found that biotechnology-derived crop varieties globally reduced GHG emissions by the equivalent of 15.27 million cars in 2018.<sup>1</sup> Newer innovations, such as biostimulants and microbial technologies, can also increase root growth, thus binding greater amounts of carbon to the soil. Improved animal genetics can help livestock adapt to a changing climate and contribute to reduced GHG emissions.

We are proud of the accomplishments achieved to date by our nation’s farmers and ranchers, and remain even more excited about the potential environmental benefits and climate change mitigation that could be possible through the continued development and adoption of new technologies improved with the help of innovative genomics. Genetic makeup is an intrinsic variable of plants and animals that

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<sup>1</sup> <https://www.tandfonline.com/doi/full/10.1080/21645698.2020.1773198>

influences traits driving production efficiency and resiliency. Gene editing is an efficacious means for producing crops and livestock with the genetic elements that drive traits for thriving in specific environments. Innovative biotechnology allows new plant varieties and animal breeds to continue to produce more with less — less water, less land, less inputs, less emissions. With the publication of USDA’s final SECURE Rule in August of 2020, the regulatory framework for USDA is set, however we believe that there are other areas where USDA can assist with furthering the adoption of biotechnology and its corresponding benefits. For one, as part of its responsibility under the Coordinated Framework, USDA can continue to be proactive in encouraging the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) to publish risk and science-based biotechnology regulations and guidance that foster innovation and increase the overall adoption of new biotechnologies.

The United States government has maintained a consistent goal to create a biotechnology regulatory environment that fosters innovation. In July 2015, President Obama’s Executive Office of the President (EOP) issued a memo raising concerns that the current biotechnology regulatory framework was, in some cases, imposing unnecessary costs and burdens that were preventing small and mid-sized businesses from participating in the marketplace, limiting public understanding of the regulatory process, and in essence stifling innovation.<sup>2</sup> The memo created an interagency working group to develop a “National Strategy for Modernizing the Regulatory System for Biotechnology Products” (*National Strategy*), which was published in September 2016. The *National Strategy* reaffirms that, “the policy of the United States Government is to seek regulatory approaches that protect health and the environment while reducing regulatory burdens and avoiding unjustifiably inhibiting innovation, stigmatizing new technologies, or creating trade barriers.”<sup>3</sup> These same concerns and the need for modernization were reaffirmed by the Trump Administration, which issued its own, “Executive Order on Modernizing the Regulatory Framework for Agricultural Biotechnology Products,” (E.O.) in June 2019. As noted above, the vision, goals, and objectives aimed at modernizing the U.S. biotechnology regulatory framework are bipartisan and transcend administrations. We encourage USDA to continue the dialogue with EPA and FDA toward achievement and continual improvement upon these goals. It remains critically important for the U.S. regulatory framework to continue to evolve and adjust to experiences gained and the best available science.

In addition, we support the ongoing public and private investment in the research and development of new technologies that have the potential to enhance the sustainability of agriculture and protect the environment and our global food system. In order for U.S. farmers and ranchers to lead in the future, we must have access to every tool available to address pressing challenges caused by climate change, such as severe weather events and rapidly evolving pests and diseases. We must do this while simultaneously meeting societal expectations for reductions in the use of inputs and increasing new varieties of healthy and affordable food, feed, biofuel, and fiber options. Access to and the development of technology is essential for confronting these challenges, and we believe that biotechnology has demonstrated a unique ability to meet these demands.

Our associations strongly support a science- and risk-based regulatory system which fosters innovation, values the environmental benefits that using biotechnology enables agriculture to achieve, recognizes the long and safe track record of plant and animal breeding, and the overwhelming evidence of the safe

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<sup>2</sup>[https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/modernizing\\_the\\_reg\\_system\\_for\\_bio\\_tech\\_products\\_memo\\_final.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/modernizing_the_reg_system_for_bio_tech_products_memo_final.pdf)

<sup>3</sup> [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/biotech\\_national\\_strategy\\_final.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/biotech_national_strategy_final.pdf)

use of genetic engineered plants and animals. USDA should continue to communicate how policy decisions related to new plant and animal varieties enable agriculture and forestry to further contribute to climate solutions. In 2020, the United States Department of Agriculture called for public input on the Agriculture Innovation Agenda to help “stimulate innovation so that American agriculture can achieve the goal of increasing U.S. agricultural production by 40 percent while cutting the environmental footprint of U.S. agriculture in half by 2050.”<sup>4</sup> In a summary of the key findings from all of the feedback received, USDA published the “[Agriculture Innovation Agenda: Scorecard Report](#).” A key finding of that report was that a primary driver of productivity growth is “improvements in animal and crop genetics.”<sup>5</sup> Biotechnology is a critical tool in breeding to enhance the efficiency and efficacy of agriculture through improvements in genetics that will maintain American agriculture as the world leader in efficiency and sustainability. It is critically important that farmers and ranchers have access to new plant and animal varieties that keep pace with the future growing challenges posed by an evolving climate. Biotechnology enables producers to more quickly and easily adapt to obstacles posed by a changing climate. Public acceptance of biotechnology could be improved if all the Coordinated Framework agencies (USDA, EPA and FDA) commit to research, document, and communicate the environmental benefits biotechnology enables agriculture to deliver, in addition to the existing, traditional research and communications regarding the safety of biotechnology. Also, USDA programs should be geared toward encouraging the adoption of plant varieties and animal breeds that benefit the environment, which biotechnology has demonstrated the ability to do.

Finally, to facilitate greater adoption of climate-smart biotechnology innovations that can improve environmental outcomes, it is important that international markets have consistent, science-based rules for biotechnology products that do not impede access to innovation. To truly enable agriculture to be a solution to climate change, innovation is essential and trade policy must be incorporated into a comprehensive climate strategy and prioritized to address barriers to innovation. Unfortunately, some trading partners have maintained policies that inhibit innovation. A 2020 report by the European Academies Science Advisory Council stated: *Given the escalating, shared, problems associated for example, with climate change, it is vital that EU actions take account of our responsibilities in the global context and that we do not repeat our past mistakes in failing to capitalise on advances in the biosciences*<sup>6</sup>. We agree with this perspective and urge USDA to fully engage with our trading partners to pursue a robust climate change agenda, which reduces barriers to innovation and levels the playing field so that innovation can be leveraged globally to address climate challenges.

Access to new biotechnology varieties, facilitated by predictable markets, is not only important for the economic viability of U.S. agriculture, but it also allows producers to maintain and improve upon the environmental gains and GHG reductions these tools have already brought. USDA has worked tirelessly with the United States Trade Representative (USTR) to resolve these trade and innovation impediments under both the Obama and Trump Administrations. We strongly urge maintaining these trade normalization efforts, both for existing technologies, as well as continuing to develop predictable, consistent international regulatory approaches for new innovations, such as gene editing.

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<sup>4</sup> <https://www.usda.gov/aia>

<sup>5</sup> Agriculture Innovation Agenda: Scorecard Report, <https://www.usda.gov/sites/default/files/documents/aia-scoreboard-report.pdf>, page 4.

<sup>6</sup> [https://easac.eu/fileadmin/PDF\\_s/reports\\_statements/Genome\\_Editing/EASAC\\_Genome-Edited\\_Plants\\_Web.pdf](https://easac.eu/fileadmin/PDF_s/reports_statements/Genome_Editing/EASAC_Genome-Edited_Plants_Web.pdf)

The individuals represented by our associations believe in the vital contributions that our agriculture community can make to mitigate climate change and build toward a more sustainable food system. We believe in science and evidence-based solutions. We must acknowledge that scientific innovations, such as agricultural biotechnology, have resulted in environmental and societal benefits; and must continue to be a part of the comprehensive strategy on climate change and U.S. agriculture.

Thank you again for the opportunity to provide our perspective.

Sincerely,

Agricultural Retailers Association  
American Farm Bureau Federation  
American Seed Trade Association  
American Society of Agronomy  
American Soybean Association  
American Sugarbeet Growers Association  
Association of Virginia Potato & Vegetable Growers  
Biotechnology Innovation Organization  
Colorado Potato Administrative Committee  
Crop Science Society of America  
Idaho Potato Commission  
Maine Potato Board  
Minnesota Area II Potato Council  
National Association of Wheat Growers  
National Cattlemen's Beef Association  
National Corn Growers Association  
National Cotton Council  
National Council of Farmer Cooperatives  
National Milk Producers Federation  
National Pork Producers Council  
National Potato Council  
National Sorghum Producers  
North Carolina Potato Association  
Northern Plains Potato Growers Association  
Oregon Potato Commission  
Potato Growers of Michigan  
Produce Marketing Association  
Society of American Florists  
Soil Science Society of America  
United Potato Growers of America  
U.S. Beet Sugar Association  
U.S. Canola Association  
Washington State Potato Commission  
Wisconsin Potato & Vegetable Growers Association