

February 3, 2023

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Assistant Deputy Administrator
Animal Plant and Health Inspection Service
U.S. Department of Agriculture
4700 River Road
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Submitted electronically via Federal eRulemaking Portal

RE: Request for Information; Identifying Ambiguities, Gaps, Inefficiencies, and Uncertainties in the Coordinated Framework for the Regulation of Biotechnology (APHIS-2022-0076)

Dear Dr. Pearson,

As groups representing growers, researchers, developers, retailers, cooperatives, and other stakeholders, we are writing to respond to the request for information (RFI) seeking to identify ambiguities, gaps, inefficiencies, and uncertainties in the Coordinated Framework for the Regulation of Biotechnology (APHIS-2022-0076). Our groups generally support streamlined market access for food and agricultural genetic innovations and the countless benefits they can offer producers, consumers, and the environment. We applaud the administrative policy objective established in Executive Order (E.O.) 14081,¹ under which this RFI was published, aiming to clarify and streamline regulations in service of a science- and risk-based, predictable, efficient, and transparent regulatory system to support the safe use of products of biotechnology. We greatly appreciate the administration for initiating this important regulatory modernization effort and appreciate the opportunity to comment.

Below we provide relevant information and recommendations to the administration which we believe will assist with implementation of the executive order. Our comments are not intended to be exhaustive of recommendations, nor do they address every potential type of innovation across the technology landscape. We seek to provide perspective on issues where we feel there is significant consensus among the stakeholder community aligned with the pro-innovation objectives of the administration.

Great strides have been made over the past several administrations to improve the regulatory landscape for new agricultural products of genetic innovation, especially considering the plethora of new technologies being discovered and developed in life sciences. Despite these recent improvements, the work is far from complete. There remains a great number of ambiguities, gaps, inefficiencies, and uncertainties which we urge the administration to address as part of this regulatory modernization initiative.

Plant Gene Editing and Biotechnology Regulation – A Recent Historic Overview

Plant biotechnology has been one of the most important tools for agricultural production in the past several decades. Recombinant crop traits have helped improve yields, decrease food waste, reduce the environmental footprint of agriculture, maintain an affordable food supply for consumers, among many other benefits. Gene editing holds as much, if not an even greater potential, than traditional

¹ Biden Jr., Joseph R. The White House. September 12, 2022. *Executive Order on Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy*. Executive Order 14081. <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/09/12/executive-order-on-advancing-biotechnology-and-biomanufacturing-innovation-for-a-sustainable-safe-and-secure-american-bioeconomy/>

recombinant technologies to democratize access to genetic innovation in agriculture and unleash even greater benefits in the years to come. However, the significant costs of regulation for these innovations (which in retrospect have often been shown not to be risk-based or scientifically justifiable) have served as a great barrier to commercialization. To date, this hurdle has limited applications of these technologies mostly to larger acre row crops where costs can be more easily recouped. Not only have these barriers limited market participation, but they have deprived specialty and minor use crops the opportunity of accessing these valuable technologies.

Despite technological improvements in recent decades, commercialization costs have not trended positively in large part due to regulation. A study found that from 2008-2012, bringing a new recombinant biotech crop trait to market cost on average \$136 million and took more than 13 years. At that time, regulatory science and compliance alone cost \$35.1 million per crop trait, or 25.8 percent of the total costs of commercialization, and required 4.8 years, or 36.7 percent of the time necessary for commercialization.²

Encouragingly, a recently released 2022 reassessment analyzing trait commercialization costs and timeframes from 2017-2022 found overall commercialization costs have decreased to \$115 million, largely driven by improvements in discovery and new efficiencies in genetic event construction and testing. However, the analysis disappointingly found that regulatory costs in the time between the two studies grew to \$43.2 million, or 37.6 percent of commercialization costs. Moreover, overall timeframes for commercialization increased to 16.5 years, of which 8.4 years, or 51.1 percent of the total time, was devoted to regulatory purposes.³

In summary, over the course of a decade, the cost of regulation for recombinant biotech trait commercialization grew by more than 23 percent while regulatory timeframes grew by 75 percent. This is not a trend conducive to improving access to vital food and agricultural innovations. Unless addressed, these barriers also risk stifling an entire new generation of gene edited crop improvements.

Continued USDA Action on Plant Regulation

As discussed above, however, regulatory improvement efforts have been underway the past several years, and we are optimistic of the opportunities provided by E.O. 14081. Of the three federal plant co-regulators, USDA has made the most progress towards modernizing its plant biotechnology regulatory system in recent years. While the May 2020 finalization of revisions to USDA's 7 CFR § 340 governing regulations (hereafter Part 340) established many improvements for the department's regulatory system, numerous gaps, inefficiencies, and uncertainties remain which are limiting the ability to deploy many important agricultural genetic innovations.

There are several steps the department should take to address these shortcomings. First, the Part 340 revisions allow for the exemption of plants containing certain, single modifications that could have otherwise been achieved through conventional breeding. Exemptions in the rule include plants where:

² McDougall, Phillips. September 2011. *The cost and time involved in the discovery, development and authorisation of a new plant biotechnology derived trait*. https://croplife.org/wp-content/uploads/pdf_files/Getting-a-Biotech-Crop-to-Market-Phillips-McDougall-Study.pdf

³ AgbioInvestor. April 2022. *The cost and time involved in the discovery, development and authorisation of a new plant biotechnology derived trait*. <https://croplife.org/wp-content/uploads/2022/05/AgbioInvestor-Trait-RD-Branded-Report-Final-20220512.pdf>

- (1) The genetic modification is a change resulting from cellular repair of a targeted DNA break in the absence of an externally provided repair template; or
- (2) The genetic modification is a targeted single base pair substitution; or
- (3) The genetic modification introduces a gene known to occur in the plant's gene pool, or makes changes in a targeted sequence to correspond to a known allele of such a gene or to a known structural variation present in the gene pool.

On one hand, these exemptions offer helpful new tools for breeders and developers, are risk-based and scientifically justifiable, are unlikely to pose a plant pest risk relative to conventionally bred plant counterparts, and remove regulatory barriers. However, it is a very narrow, limited toolset and ties the ability of breeders and developers to bring other varieties to market that also could occur through conventional breeding. We consider this an inefficient gap and believe the department should expand this list of exemptions.

For example, the exemptions are only permitted to a single modification. However, it is well documented that in the conventional breeding process numerous *de novo* mutations naturally occur in offspring generations which are not present in either parent.^{4,5} These mutations are rarely deleterious and generally pose no plant pest risk. Further, when breeders develop cultivars that have been cross-bred with sexually compatible wild relatives, the resulting variety can contain many genes from the wild relative, not a single gene as permitted by the exemptions. This limitation to single modifications is not supported by science and ties the hands of breeders and developers, preventing multiplex edits, modifications to polyploids or plants containing duplicate genes at different loci, among other important genetic improvements.

USDA's Animal Plant and Health Inspection Service (APHIS), which enforces the department's regulatory regime, has the authority under the rule (and in fact, has proposed but not yet adopted)⁶ additional exemptions under the rule. Where science justifies and a plant pest risk does not occur, we urge the department to begin expeditiously expanding this list of exemptions to provide breeders and developers a more complete set of tools to improve plant genetics. Moreover, for greater regulatory predictability, the department should provide timeframes under which it will consider future proposed exemptions.

For plants containing modifications that do not meet these exemptions, the department has established a regulatory status review (RSR) process to determine if plants are likely to pose a plant pest risk. While the agency has established a 180-day timeframe for completing the initial review of RSR proposals, none have been completed under this timeframe to date. We encourage the department to strictly adhere to the timeframes established in regulations to provide greater predictability for breeders and developers, which will allow new plant varieties a more efficient path to market.

⁴ Exposito-Alonso, Moises, et. al. February 12, 2018. "The rate and potential relevance of new mutations in a colonizing plant lineage." *PLOS Genetics*. <https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1007155>

⁵ López-Cortegano, Eugenio, et. al. September 2021. "De Novo Mutation Rate Variation and Its Determinants in *Chlamydomonas*." *Molecular Biology and Evolution*. Vol. 38, Iss. 9. P. 3709-3723. <https://academic.oup.com/mbe/article/38/9/3709/6265477>

⁶ U.S. Department of Agriculture. Animal and Plant Health Inspection Service. Biotechnology Regulatory Services. July 19, 2021. "Movement of Organisms Modified or Produced Through Genetic Engineering; Notice of Exemptions." *Federal Register* Vol. 86, No. 135. P. 37988-37989. <https://www.regulations.gov/document/APHIS-2020-0072-0001>

EPA Action on Plant Regulation

While USDA has finalized its plant regulations, EPA to date has only proposed a rule on how it will treat certain plant-incorporated protectants (PIP) derived from newer technologies, including gene editing. We appreciate the steps EPA has taken to date to modernize its regulatory approach to consider applications of new genetic techniques, however breeders, developers, and the agricultural community need the agency to swiftly finalize a rule. Lacking a final rule, PIPs developed from newer technologies, including gene editing, will be subject to the vastly more rigorous existing regulatory pathway for PIPs derived from recombinant technologies, even if the class of PIPs under consideration is “indistinguishable from those found in a plant created through conventional breeding,”⁷ and thus of significantly lower risk. This existing regulatory pathway is not risk-appropriate for this certain class of PIPs, especially considering conventionally bred PIPs are already largely exempt from federal pesticide laws.

PIPs derived from newer technologies have enormous potential to protect crops, reduce the use of crop inputs, improve environmental outcomes, reduce food waste, among many other benefits. However, in absence of a clear, risk- and science-based regulatory pathway for this class of PIPs, we expect research and development to lag in these innovations. We urge the agency to swiftly finalize rules to close this significant gap in regulation.

While EPA is looking to finalize this rule and any subsequent implementation guidance, we also strongly encourage coordination with co-regulators at USDA and FDA. The federal regulatory framework for products of biotechnology is aptly named the Coordinated Framework, and for good reason. The creators of the Coordinated Framework envisioned, as much as is possible, that the co-regulatory agencies would adopt consistent requirements to alleviate inadvertent barriers that might result from a fragmented regulatory approach. That concern remains a significant risk as EPA seeks to finalize this rule. As discussed above, USDA has already finalized its rulemaking and has made strides towards implementation. If data needs or other requirements are not coordinated and streamlined across agencies as much as possible, regulations may continue to crowd out smaller market participants, prevent technology access for specialty and minor use crop producers, or render innovations with anticipated narrow margins economically infeasible. As discussed below, we also strongly encourage FDA to take a similar coordinating approach.

FDA Action on Plant Regulation

More action is also needed from FDA to address inefficiencies, gaps, and uncertainties in its plant biotechnology regulatory program. These concerns are not only currently beleaguering recombinant products and contributing to higher regulatory costs and timeframes as described above, but they potentially pose an existential threat to domestic use of gene editing technologies in the future.

First and foremost, the research, developer, and breeder communities urgently need FDA to issue risk- and science-based guidance on how the agency plans to approach new gene edited plant varieties, especially for those that could have occurred through conventional breeding. This guidance should be

⁷ U.S. Environmental Protection Agency. Office of Chemical Safety and Pollution Prevention. Office of Pesticide Programs. October 9, 2020. “Pesticide Tolerance Exemption: Certain Plant-Incorporated Protectants Derived from Newer Technologies.” *Federal Register* Vol. 85, No. 197. P. 64308-64344. <https://www.federalregister.gov/documents/2020/10/09/2020-19669/pesticides-exemptions-of-certain-plant-incorporated-protectants-pips-derived-from-newer-technologies>

consistent with the agency's 1992 guidance on Foods Derived from New Plant Varieties.⁸ FDA issued a request for comment in January 2017 soliciting stakeholder feedback on how to approach gene editing in new plant varieties used for food.⁹ However, six years later, stakeholders are still awaiting even draft guidance from the agency. In October 2018, FDA also published its *Plant and Animal Biotechnology Innovation Action Plan*, in which the agency pledged to "publish the draft guidance for public comment in early 2019."¹⁰ Without this guidance, we are concerned FDA may serve as a regulatory bottleneck for these technologies in plants in the coming years.

We should make clear why FDA's plant consultation program, which is voluntary, is so important to the breeder, developer, and agricultural communities and requires both clarity and efficiency. While breeders and developers are not statutorily bound to complete consultations at FDA, most greatly appreciate the agency's expertise in ascertaining that new varieties intended for food or feed purposes are safe for human and animal consumption. Additionally, many domestic and foreign customers of agricultural goods anticipate food and feed biotech products will have undergone FDA consultation. FDA's premarket plant consultation program is vitally important for the regulatory pathway for genetic innovations in the United States and stakeholders rely on the agency's processes being science- and risk-based, predictable, efficient, and transparent to ensure product safety.

With that in mind, lacking updated guidance from the agency, it is not at all clear which product classes the agency anticipates could benefit from consultation. It would be highly inefficient and not scientifically justifiable to expect every variety to undergo consultation given the low-risk profile of many gene edited plant innovations, especially those which could be achieved through conventional breeding. It is also inconsistent with FDA's 1992 guidance on Foods Derived from New Plant Varieties, which states that "the established practices that plant breeders employ in selecting and developing new varieties of plants... have proven to be reliable for ensuring food safety.... Based on this record of safe development of new varieties of plants, FDA has not found it necessary to conduct, prior to marketing, routine safety reviews of whole foods derived from plants."¹¹

While it is true one new gene edited plant variety has completed a truncated consultation at FDA, one is not a sufficient sample size on which breeders and developers can stake potentially ad hoc consultation requirements or timelines sans guidance. This is especially true given the current protracted state of consultation timelines, which we discuss further below. It also is not a science- and risk-based, predictable, efficient, and transparent system. As a result of this current guidance gap, consultation expectations are ambiguous and uncertain. We urge FDA to expeditiously issue guidance for industry on gene editing in new plant varieties used for food consistent with the agency's 1992 policy, stating that varieties that could have been achieved through conventional breeding would, like their conventional counterparts, not necessarily warrant premarket review.

⁸ U.S. Department of Health and Human Services. U.S. Food and Drug Administration. Center for Food Safety and Applied Nutrition. May 29, 1992. "Statement of Policy: Foods Derived from New Plant Varieties." *Federal Register* Vol. 57, No. 104. P. 22984-23005. <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/statement-policy-foods-derived-new-plant-varieties>

⁹ U.S. Department of Health and Human Services. U.S. Food and Drug Administration. Center for Food Safety and Applied Nutrition and Center for Veterinary Medicine. January 19, 2017. "Genome Editing in New Plant Varieties Used for Foods; Request for Comments." *Federal Register* Vol. 82, No. 12. P. 6564-6566. <https://www.federalregister.gov/documents/2017/01/19/2017-00840/genome-editing-in-new-plant-varieties-used-for-foods-request-for-comments>

¹⁰ U.S. Food and Drug Administration. October 2018. *Plant and Animal Biotechnology Innovation Action Plan*. P. 5. <https://www.fda.gov/media/119882/download>

¹¹ Statement of Policy: Foods Derived from New Plant Varieties.

Regarding the consultation program, its current inefficiency is both a standalone challenge and related to the above discussed guidance concerns. Recombinant plant varieties undergoing consultation have experienced great increases in timeframes in the last several years, which has delayed many important innovations from coming to market. The average time the agency took to complete a consultation in 2016 was 14.3 months. In contrast, the average time of a consultation completed by the agency in 2022 was approximately 39.9 months – a nearly three-fold increase in timeframe.^{12,13}

While we understand the agency has had to manage several unprecedented food supply chain and human health challenges since 2020, the current consultation timeframes nonetheless create significant challenges for breeders and developers. Not only do these protracted timeframes greatly increase the cost and time to market, but they risk creating an optics challenge for new gene edited plant varieties. If a breeder or developer submits a new, low-risk gene edited plant variety to FDA for consultation and the consultation drags on for years with little progress, it risks raising concern with investors, trade partners, and the public as to the nature of the product and the technologies with which it was created. Moreover, in the years to come if a significant influx of gene edited products seeking consultation takes place, as many expect might occur, it could cause these timeframes to increase exponentially, grinding the program to an effective standstill.

These challenges not only reaffirm the need for FDA to issue guidance for how it will approach gene editing in new plant varieties used for food, which if consistent with the agency's 1992 policy could significantly reduce the agency's consultation workload. However, FDA should also review its consultation program and seek out other ways to improve efficiency. For example, the agency still reviews glyphosate-tolerant row crop varieties using the same comprehensive set of consultation criteria which it has used to review dozens of others identical crop-trait combinations. By expediting review of these crop traits or finding them non-regulated, as USDA has done under its recent Part 340 revisions, it would further reduce FDA's workload and consultation timeframes, allowing the agency to focus its limited resources on new products which might truly pose a food or feed risk.

As with EPA, we strongly encourage FDA to coordinate its modernization approach with both USDA and EPA to minimize any inefficiencies that could occur with inconsistent regulatory approaches. Finally, another benefit that will occur if both EPA and FDA swiftly adopt positions on gene editing consistent with the approach taken by other pro-innovation global regulatory agencies is that it will improve opportunities for greater international regulatory consistency. Adoption of biotech crops has historically been snarled with discordant regulatory approaches from our trade partners, which require their own product approvals to import certain crop-trait varieties. These approaches are often unscientific or thinly veiled protectionist trade barriers. The delay in FDA and EPA finalizing coordinated regulatory approaches with USDA to date has tied the hands of U.S. trade negotiators from advocating for a consistent U.S. position on agricultural applications of gene editing to fend off a fragmented fate seen by recombinant products. The more expeditiously EPA and FDA adopt policies consistent with other pro-innovation global regulatory agencies, it will release our trade representatives to advocate for that unified position with our trade partners that will greatly benefit U.S. agriculture.

¹² U.S. Department of Health and Human Services. U.S. Food and Drug Administration. Center for Food Safety and Applied Nutrition. *New Plant Variety Consultations*. Accessed January 21, 2023. <https://www.cfsanappsexternal.fda.gov/scripts/fdcc/?set=NewPlantVarietyConsultations>

¹³ Average consultation rate lengths were calculated by counting the number of months taken for each consultation completed in a calendar year from application submission date to completion date, rounding to the nearest month, and then taking the average of the number of months derived for all applications completed in the given calendar year.

Regulatory Clarity for Genetically Engineered Microorganisms

Another area of regulation containing significant gaps, ambiguities, and uncertainties is that of genetically engineered microorganisms. Like biotech plants, these innovations have the potential to improve crop yields, optimize the use of crop inputs, improve environmental outcomes, among many other benefits. However, to realize these advantages, these tools also need a predictable, timely, efficient, risk- and science-based regulatory pathway to market, which they currently lack.

First, the jurisdiction for various genetically engineered microorganism innovations is ill defined. While we appreciate APHIS for recently issuing a Question & Answers document for stakeholders regarding the regulation of genetically engineered microorganisms under Part 340,¹⁴ the document does not provide the clear, predictable commercialization pathway required by developers. Formal guidance is needed from the Department. Congress recently agreed with this assessment. In the joint explanatory report for the recently enacted *Consolidated Appropriations Act, 2023*,^{15,16} Congress directed:

While APHIS published a final rule in May 2020 to update its biotechnology regulations under Part 340 for biotechnology plants, genetically engineered (GE) microbes were not provided similar, clear next steps for obtaining permits and moving towards commercialization. The Committee urges APHIS, to take measurable steps to establish a predictable and science-based regulatory pathway, including guidance on categories or characteristics of microbes within APHIS's Part 340 scope, and to establish an outreach strategy to engage impacted developers and other stakeholders in the process of scoping a Regulatory Status Review for GE microbes for future rulemaking.

We urge the department to, as directed by Congress, engage with developers and other stakeholders specific to this topic and provide the guidance needed to provide a clear, predictable, risk- and science-based regulatory framework for these important innovations.

As USDA is considering its regulatory approach, we would encourage the department to consider several factors. First, as previously discussed, the recent revisions to Part 340 contained several exemptions for plants that could have been achieved from conventional breeding. While these initial exemptions are scientifically justifiable (though, as discussed, should be expanded upon), USDA explicitly opted to limit these exemptions to plants despite that many could apply to low-risk microorganisms containing modifications, including from gene editing, that could have occurred via natural mutation. We urge the department to consider applying these exemptions or an analogous science-based set to genetically engineered microorganisms containing modifications that could occur naturally. We also encourage USDA to establish formal processes by which developers can consult with the department, as well as clear pathways for permitting and product deregulation, as the department has done with plants, while ensuring products are not inadvertently subject to duplicative layers of regulation.

¹⁴ U.S. Department of Agriculture. Animal and Plant Health Inspection Service. Biotechnology Regulatory Services. August 2022. *Questions & Answers: Working with Microorganisms Developed Using Genetic Engineering Under 7 CFR part 340*. <https://www.aphis.usda.gov/biotechnology/downloads/faq-modified-microbes.pdf>

¹⁵ *Joint Explanatory Statement Accompanying Division A – Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Title of the Consolidated Appropriations Act, 2023*. Public Law 117-328. <https://www.appropriations.senate.gov/imo/media/doc/Division%20A%20-%20Agriculture%20Statement%20FY23.pdf>

¹⁶ *Report Accompanying House Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act*. House Report 117-392. <https://www.congress.gov/117/crpt/hrpt392/CRPT-117hrpt392.pdf>

Forward Thinking on Emerging Technologies

The above-mentioned regulatory modernization needs primarily address existing technologies or applications. However, as the administration is aware, life sciences are a quickly evolving research area with new discoveries occurring and technologies being developed regularly. For example, we understand there is significant research and development taking place in recombinant crops capable of producing alternative food proteins (e.g. plant-grown proteins); self-limiting or self-propagating platform technologies capable of restricting insect, weed, or other pest populations; epigenetic technologies that allow crops to adapt to emerging environmental or market conditions; synthetic biology innovations that, candidly, could hold countless applications for food and agriculture; among many others. While we cannot (nor would we expect the administration to) predict the sheer volume of food and agricultural applications that might result from these or other prospective life science technologies, steps can be taken to better facilitate the swift development of new regulatory pathways when innovation necessitates.

First, when researchers or developers approach the agencies to consult on potential regulatory needs or pathways for these or other future innovations, we strongly urge regulators to view them through a risk-, science-, and evidence-based lens. These standards, which are central to the Coordinated Framework, have been reaffirmed by numerous administrations, and which the agencies should seek to codify in their regulations where possible, will allow the regulators to objectively consider the potential benefits or risks of a product; what an efficient, predictable, timely regulatory process might look like; and what sort of post-market processes, if any, may be needed to allow its safe, effective use. Moreover, these standards should prevent any inadvertent bias or precautionary approach from unnecessarily inhibiting valuable innovations from coming to market.

Moreover, using this risk-, science-, and evidence-based standard, we also encourage the agencies to build into their regulations an efficient consultation and petition process that can allow developers to approach regulators and, statutory requirements permitting, swiftly propose new regulatory pathways for novel innovations. This approach will accomplish two things – first, it will enable regulators to maintain long-term the essential risk- and science-based standards required for good regulation. Second, it will also equip regulators with the dynamic flexibility needed to create new regulatory pathways as needed without having to wait for once-in-a-generation regulatory overhauls to occur.

Conclusion

Agricultural biotechnology and emerging genetic technologies have enormous potential to benefit producers, consumers, and our environment. Our research communities have also played a vital role in helping to make these innovations a reality. Without their efforts and the central role of basic research and discovery, we would not be able to enjoy the benefits these important tools offer today. Because of these essential technologies and the researchers who have made them possible, we have seen many benefits of traditional recombinant technologies in recent decades and are excited about the ways in which our society can benefit further from gene edited crop varieties and other innovations in the years to come. However, to actualize these benefits, we must have a science- and risk-based, predictable, efficient, and transparent regulatory system and provide continued support to the research and developer community to help bring these vital innovations to market.

Much work has been done over the past several administrations to modernize the regulatory system for these innovations, but as our comments note, many gaps, inefficiencies, ambiguities, and uncertainties

remain which require resolution. We greatly appreciate the initiative taken by the administration to tackle these remaining difficulties and to create a meaningful commercialization pathway for these and future food and agricultural innovations and for the continued support shown to our research, developer, and agricultural communities.

Thank you for the opportunity to comment on both identifying challenges and providing solutions on how to best modernize and streamline the rules governing these important innovations.

Sincerely,

Agricultural Retailers Association
American Farm Bureau Federation
American Seed Trade Association
American Society of Plant Biologists
American Soybean Association
American Sugarbeet Growers Association
Biological Products Industry Alliance
Biotechnology Innovation Organization
Crop Science Society of America
International Fresh Produce Association
National Association of Wheat Growers
National Corn Growers Association
National Council of Farmer Cooperatives
National Cotton Council
National Potato Council
National Sorghum Producers
The Fertilizer Institute
U.S. Beet Sugar Association
U.S. Canola Association
U.S. Wheat Associates