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RE: Docket No. USDA-2021-0003: Notice of Request for Public Comment on the Executive Order on Tackling the Climate Crisis at Home and Abroad

William Hohenstein  
Director, Office of Energy and Environmental Policy  
U.S. Department of Agriculture  
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April 29, 2021

Dear Mr. Hohenstein,

Founded in 1883, the American Seed Trade Association (ASTA) is one of the oldest trade organizations in the United States. Its membership consists of over 700 companies involved in seed production and distribution, plant breeding, and related industries in North America. ASTA members research, develop, produce and distribute all varieties of seeds – including grasses, forages, flowers, vegetables, row crops, and cereals. ASTA member seed-products support agricultural producers of food products and farm commodities in the U.S. and around the world.

Today's food and agriculture system faces unprecedented challenges, from climate change to a growing population, and rapidly evolving pests and diseases. Continued innovation in plant breeding and seed variety development are crucial to ensuring long-term economic, social and environmental sustainability. The seed industry is founded on innovation, and innovation is a part of everything we do – from plant breeding and seed treatments, to soil health and habitat restoration. Better seed means better life, for everyone.

ASTA is pleased to provide these comments to the United States Department of Agriculture (USDA) in response to its request for public comment on the Executive Order on Tackling the Climate Crisis at Home and Abroad.

## Climate-Smart Agriculture and Forestry Questions

*How should USDA utilize programs, funding and financing capacities, and other authorities, to encourage the voluntary adoption of climate-smart agricultural and forestry practices on working farms, ranches, and forest lands?*

*How can USDA leverage existing policies and programs to encourage voluntary adoption of agricultural practices that sequester carbon, reduce greenhouse gas emissions, and ensure resiliency to climate change?*

*What new strategies should USDA explore to encourage voluntary adoption of climate-smart agriculture and forestry practices?*

The success of America's farmers is directly tied to the health of the land and natural resources, which is why farmers understand the critical importance of protecting the environment. ASTA advocates for investments in flexible and efficient conservation programs that provide producers with the financial and technical assistance needed to conserve our nation's most precious resources. Working lands conservation is an important element for the sustainable growth of agriculture. Significant use of cover crops in production agriculture is one of the most promising practices to address both the stewardship of our soils and nutrient reduction in our environment. USDA policies and programs should encourage the use of professionally produced quality seeds.

**Environmental and Conservation Seed:** The seed industry plays an important role in providing quality seed for land restoration, rehabilitation, reclamation and conservation. Environmental and conservation seed helps to restore lands devastated by wildfires, natural disasters, and invasive weeds. It serves as the foundation of healthy landscapes, contributing to stable ecosystems and economies, while providing critical erosion-control and biodiversity benefits.

**Cover Crop Seed:** Better cover crop seed helps farmers not only achieve their conservation goals, but also their business goals, by contributing to soil health and carbon sequestration, while conserving resources and boosting productivity.

**Plant Breeding:** Plant breeders have been improving seeds for thousands of years. Thanks to our growing scientific understanding of plant sciences, breeders today can develop better seeds with greater efficiency and precision than ever before. This means more resilient crops that can thrive despite pressures from drought, flooding, extreme temperatures, and evolving insects and diseases. Better seed allows farmers to grow more, using less land and fewer resources; and in turn, provides consumers with access to wider varieties of safe, affordable and nutritious foods. Additionally, evolving breeding innovations like gene editing, hold tremendous promise for unlocking solutions to some our most pressing global challenges, from climate change mitigation to food security.

*How can partners and stakeholders, including State, local and Tribal governments and the private sector, work with USDA in advancing climate-smart agricultural and forestry practices?*

**Public/private Sector Collaborations:** Public/private collaborations are critical in advancing climate-smart agricultural and forestry practices. Appropriate policies can incentivize investments in plant breeding innovation such as gene editing, creating new jobs and market opportunities, and boosting sustainability along the entire food value chain. A long-standing example of public/private sector collaboration is the Germplasm Enhancement of Maize (GEM) project which is a cooperative effort of the USDA’s Agricultural Research Service (ARS), land-grant universities, and industry. GEM's objective is to widen the germplasm base of commercial hybrid corn in the United States through the introduction and incorporation of novel and useful germplasm gathered from around the globe. Another example of successful public/private collaboration is through the National Turfgrass Evaluation Program (NTEP). Similar collaborations should be established to increase awareness of opportunities and breeding needs in the cover crop sector.

Similarly, the close collaboration between agricultural technology companies and University of California Davis (UC Davis) has resulted in identifying key pre-commercial research priorities. Seed Central at UC Davis provides a networking forum that facilitates the public/private collaborations often needed to shift these pre-commercial research priorities to commercial applications.

There are also expanding opportunities for public/private collaborations beyond the traditional agriculture system, for example with Department of Energy, the automobile industry and the manufacturing sector, as the range of crop applications expand.

Public and private breeding sectors and the agricultural producers of our food, feed, fiber and fuel supply could benefit from increased collaboration opportunities. Potential examples of collaborations that could begin and endure over the 2020-2050 timeframe are:

- Devising entirely new crop rotation systems that introduce new crops into existing rotation patterns
- Identifying cover crop systems that fit into the growing season of the more northern latitudes that struggle to have a cover crop established prior to a freeze
- Modeling cropping systems and predicting durability of a range of pest solutions
- Identifying species that have substantial genetic vulnerabilities to pests due to lack of genetic diversity and determining solutions
- Initiating collaborations that are similar to the GEM for other species, where the private sector enables the collaboration with germplasm as well as in-kind support and the public sector leads the “pre-breeding” efforts to diversify the species
- Strategic education of future public and private sector agriculture employees with forward looking goals of developing new skill sets that will be required for the next generation
- Increasing the number of employees that shift from the public sector to the private sector and vice versa through revised sabbatical systems or planned employment shifts, including private sector sabbaticals where scientists visit universities and USDA facilities

**Seed health:** Impacts on seed health continue to increase due to effects of climate change. Seed is a global industry, and the international movement of seed can increase the risk of introducing invasive exotic pests into new and vulnerable environments. The seed industry is working

collaboratively with USDA APHIS and the International Plant Protection Convention (IPPC) to develop more effective approaches to reducing phytosanitary risk associated with seeds such as the systems approach. The systems approach provides a holistic approach to manage phytosanitary risk and minimize the potential for exotic pests to contaminate the overall seed supply. Such collaborations need to be expanded to include the research and plant breeding communities nationally and internationally to develop more robust varieties that have pest resistance coupled with traits that help reduce threats posed by climate change.

***What data, tools, and research are needed for USDA to effectively carry out climate-smart agriculture and forestry strategies?***

**Communication:** One of the key barriers to application of innovative solutions, is gaining the trust of consumers in accepting these innovative solutions. Therefore, communication across the value chain about the value and benefits of these solutions is critical. Furthermore, regulatory burdens that are not justified by risk and science will also hinder the realization of innovative solutions. This includes regulations that inhibit the flow of and the ability to access germplasm from accessions in other countries.

The USDA and the private sector should collaboratively reach out to other relevant government agencies to minimize duplicative regulatory burdens hindering commercial product development through innovative technologies such as genome editing. Joint efforts should be made to educate policy agencies in the U.S. and globally regarding the safety of enabling technologies that increase plant performance.

**Seed Treatments:** The USDA should continue to ensure that producers have the tools needed to promote resiliency, including through seed treatments. Seed treatments help protect the developing seed during its most vulnerable time – at planting and germination. Their highly targeted, precise approach means less impact on the surrounding environment. This is one of the many valuable and innovative tools that enable America’s farmers to be more productive, while using less – that’s a win for farmer’s bottom line and a win for the environment. Continued innovations in seed treatments will allow farmers to meet new and emerging challenges while realizing healthy yields – all while protecting our land and natural resources for the future.

**Addressing Catastrophic Wildfire Questions**

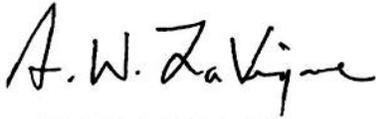
***How should USDA utilize programs, funding and financing capacities, and other authorities to decrease wildfire risk fueled by climate change?***

**Wildfire Restoration:** It is important not only to focus on the reduced risk of wildfires, but also the importance of land and wildlife restoration after they occur. Conservation and native seed play a critical role in bringing life back to areas that have been impacted by wildfires. USDA should ensure that quality seed remains a part of the solution when developing policies and strategies to address the risk of wildfires. When utilized appropriately, conservation and native seed can help in maintaining and promoting certain wildlife, including endangered, preventing

the effects of wildfire events that can negatively impact waterways, towns, and population centers.

Again, ASTA appreciates the opportunity to provide a response to this Request for Information. We are looking forward to working with USDA on this critically important initiative.

Sincerely,

A handwritten signature in black ink that reads "A. W. LaVigne". The signature is written in a cursive style with a long, sweeping tail on the "e".

Andrew W. LaVigne  
President and CEO