June 21, 2021

Bruce Summers
Administrator, Agriculture Marketing Service
U.S. Department of Agriculture
1400 Independence Ave SW
Washington, DC 20250

RE: Docket No. AMS-TM-21-0034: Supply Chains for the Production of Agricultural and Food Products

Submitted Electronically via Federal eRulemaking Portal (http://www.regulations.gov)

Dear Mr. Summers,

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 membership includes approximately 85% of all private US seed companies operating in the United States. Ninety-five percent of ASTA's active members are small businesses that report annual sales of less than $15 million. ASTA values and promotes diversity of membership, in terms of company size, products and geographic area served. ASTA member seed-products support agricultural producers of food products and farm commodities in the U.S. and around the world.

ASTA is pleased to provide these comments to the United States Department of Agriculture (USDA) in response to its request for public comment on Supply Chains for the Production of Agricultural and Food Products.

Written Comments—

Rural Prosperity

Thanks to the seed industry's past, present and future research and development investments, America's farmers have access to a better quality and larger variety of seed products than ever before.

Plant breeders and companies have strived to continually improve the quality and performance of their products for America's farmers, gardeners and consumers. In bringing those new varieties

to the market, seed companies spend significant resources to research, develop, and commercialize varieties at a considerable cost and investment. This is a commitment that will continue into the future.

The U.S. seed industry is extremely diverse, both in terms of size and crops covered, with hundreds of regional and independent seed companies doing business across the country, producing seed for all sectors of the industry, including row crops, flowers, vegetables, grasses, forages and turf. They strive to provide variety choice and performance for America's growers, gardeners and landscape managers to ensure the best seed is available for the market.

Seed is the irreplaceable foundation of many aspects of our lives--from the foods that grace our tables, to the plants that conserve and beautify our landscapes--and we anticipate seeing continued strong competition in the marketplace, and the development of new and improved varieties in the future that will benefit virtually every aspect of society.

Research and Innovation

A strong federal investment in agricultural research is vital to ensuring the success of U.S. farmers and a sustainable and secure global food production system, which starts with seed.

Through advancements in agriculture and the development of new crop varieties, humans have historically strived to meet the needs of a continuously growing population and to develop a safe, reliable and sustainable food supply. As our world’s population grows from today’s seven billion people to an estimated nine billion by the middle of this century, agriculture is faced with the continued challenge of meeting the rapidly growing demand for food, feed, fiber and fuel.

ASTA supports continued public and private investment in basic and applied agricultural research, including the development of new technologies that, in turn, enhance the sustainability of agriculture and assist in meeting global needs. We must utilize every tool available to address critical threats to our food security, including climate change, drought, and evolving pests and diseases-- while ensuring global economic and environmental sustainability. Access to, and the development of, innovations in animal and plant breeding are critical to meeting these and other challenges in the future..

ASTA strongly supports a science and risk-based regulatory system which fosters innovation, values the environmental benefits that using biotechnology enables agriculture to achieve, and recognizes the long and safe track record of plant and animal breeding and the overwhelming evidence of the safe use of leveraging genetic knowledge to improve plants and animals. USDA should continue to communicate how policy decisions related to new plant and animal varieties enable the industry to further contribute to climate solutions.

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Short Supply Chains

There is an increasing demand from the consumer to purchase products closer to the producer of that product. There is also an increasing demand across the value chain for broader choices and

for higher value characteristics. This puts even more pressure on the wide adaptability of crops. To meet this need, supply chains and distribution channels will need to be optimized. Higher value traits such as improved nutrition, flavor and health attributes combined with sustainability traits will be important to meeting these supply chain needs.

Seed companies must deliver products to farmer customers within a narrow planting window. A supply chain bottleneck related to the delivery of seed can not only lead to serious implications for the success of a farmer's annual crop or to an inability to plant that season,but can cause a threat to global food security.

COVID-19

Seed is the starting point of the food system. Farmers everywhere depend on access to quality seed in order to grow healthy crops. Seed is a globally traded agricultural product, with international seed trade having increased tenfold during the past 15-20 years (ISF, 2020). Therefore, unrestricted international movement of seed is critical to ensure food security. The COVID-19 crisis has revealed the extent to which the United States is part of the global economy, including the movement of both goods and essential workers from countries around the world. The interruption of any one component can quickly affect the ability of industries in the United States to provide critical materials and services.

Labor in the industry: ASTA supports efforts to fill workforce gaps, amplified by the COVID-19 pandemic, by modernizing and strengthening the H2A program, and promoting the use of H-2A workers year-round to provide opportunity to potential employees and support to growers.

Global impacts and Trade

The U.S. seed industry is one of the most dynamic in the world. It is also increasingly subject to the forces of globalization as a number of foreign seed businesses establish a presence in the U.S. while U.S. seed companies at the same time invest in and establish facilities in overseas markets. With over 750 companies involved in the seed business in the U.S., a commercial market value of approximately $14.51billion in 2020 (Mordor Intelligence), exports of $1.6 billion (USDA GATS) and over 60,000 varieties of planting seed, the US is the largest and most diverse planting seed market in the world, followed by China, France, Brazil and Canada (OECD 2018).

The seed industry and related service sectors (seed processing, conditioning, testing, treatment, and packaging) rely on an intricate web of global supply chain logistics. The U.S. seed industry relies on production locations globally to advance R&D and breeding programs and for the production of commercial seed. From development to final sale, a seed variety may cross as many as six international borders. A consistently applied global regulatory framework and commercial best practices are critical for U.S. seed companies to succeed at the international level.

The use of diverse, global production locations provides alternatives in the case of regional disruptions such as weather failures, pandemics, or political instabilities; important counter-seasonal opportunities to speed up variety development during the U.S. winter season; opportunities to diversify product offerings based on local agronomic conditions; and the ability to produce quality seed with skilled labor closer to the location of final sale.

ASTA's Key International Policy Priorities:

Maintain U.S. leadership in plant breeding: Innovation is fundamental to the U.S. seed sector. Globally, the U.S. plant breeding and seed production sector is among the most advanced in the world when it comes to research and development. This enables the industry to continuously integrate new, sophisticated breeding techniques to develop new plant varieties, not only for the U.S. marketplace, but also for an ever-growing number of countries worldwide.

U.S. agriculture has been successful thanks to a long-standing public and private commitment to science and research that brings new discoveries to farmers and consumers. The seed industry plays an active role in this partnership, and considering the challenges of climate change and global food security, sees an opportunity and pressing need to accelerate improvement in the years ahead to support sustainable agriculture. Public policy and trade policy must foster and not unnecessarily hinder continuing innovation in the U.S. and globally.

Encourage adoption of harmonized global standards: Seed movement globally relies on the establishment of appropriate science and risk-based standards for phytosanitary, intellectual property rights, crop protection, and breeding techniques. ASTA encourages the creation and adoption of global standards to ensure the needs and concerns of ASTA members are considered. The association recommends including these provisions in bilateral and regional free trade agreements where possible. Standards include the International Union for the Protection of New Plant Varieties 1991 Act (UPOV 91) and the International Plant Protection Convention's Standard on the International Movement of Seed (ISPM 38).

New Free Trade Agreements and Continuation of Preference Programs: ASTA supports free trade agreements which can not only be used as a mechanism for countries to adopt and enforce global standards, but which can be used as a tool for ongoing dialogue. The creation of the Agriculture Biotechnology Working Group under the US-Mexico-Canada agreement is an example of this. Renewal of Trade Promotion Authority (TPA) legislation in Congress in order to initiate new trade agreements and renegotiate others such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership should be a priority.

ASTA encourages the continuation of preference programs such as the Generalized System of Preferences program and Miscellaneous Tariff Bill which provide critical duty relief to seed imports from key seed production markets.

Removal of Section 301 Tariffs: Vegetable and flower seeds are included in the Office of the U.S. Trade Representative's Section 301 List 3 and face 25% tariffs. Much of the vegetable and flower seed imported from China is actually owned by U.S. companies that produce/multiply highly labor-intensive seed in China before importing it back to the U.S. for conditioning, packaging and sale. The tariffs have tremendous impact on our companies' ability to provide affordable, quality seed to their customers — U.S. farmers and gardeners.

International Movement and Transportation of Seed: ASTA works towards the alignment of phytosanitary standards and other seed policies globally to ensure the safe and efficient movement of seed both into and out of the United States. For exports, close coordination

between APHIS, state-level phytosanitary certification agencies, and seed companies is critical to ensure that seed complies with the import requirements set by foreign governments. ASTA works closely with APHIS and FAS to encourage trading partners to remove technically unjustified phytosanitary requirements. For imports, communication between U.S. Customs and Border Protection, APHIS, and seed importers is needed so that seed imports can safely enter the United States in an efficient and timely fashion. Bottlenecks can occur as seed is moved from the port terminal to the agriculture exam station. Delays while waiting for CBP or APHIS examination and clearance of cargo can cost seed companies hundreds of dollars per day in container storage fees (detention and demurrage). Also, any substantial delays often reduce the germination and overall quality of the seed due to inadequate storage conditions. Inconsistency in inspection times and lack of transparency during the process can make it difficult for seed companies to budget accurately for shipping expenses and meet important planting windows for their farmer customers.

Ocean ports are an important gateway for both seed exports and imports. Currently, users of maritime ports are experiencing high rates of congestion, shipping delays, cancelled bookings and unfair surcharges due to an unprecedented surge of import cargo following the COVID-19 pandemic. ASTA is a member of the Agriculture Transportation Coalition who has been advocating for solutions to resolve the current situation. Ultimately, cooperation between federal agencies and all actors in the supply chain (cargo owners, ocean carriers, terminals, ports, trucking and rail providers, customs brokers and freight forwarders) is needed to improve ocean shipping for U.S. agriculture. Proposed solutions include:

- Expand hours for U.S. ports: The U.S. marine terminal gates typically are open and operating between 8 and 16 hours a day, five or six days per week, compared to Asian terminals that work 24/7. To relieve congestion, U.S. ports must expand their operating hours.
- Mandate ocean carriers carry export cargo at safe capacity levels: Typically, about 100% of the containers on an eastbound (e.g., Asian imports to North America) ship are loaded with cargo, while approximately 70-75% of the westbound (e.g., U.S. exports) containers are loaded, with the remainder left empty; and
- Support and expedite the Federal Maritime Commission (FMC) enforcement of its detention and demurrage rule: the FMC has found that carriers and terminal operators were issuing unreasonable penalties for leaving a container or maintaining possession of a container in a marine terminal for longer than allowed. Despite FMC ruling the penalties were unreasonable, the carriers and terminals have failed to follow this guidance, continuing to cumulatively issue hundreds of millions of dollars of demurrage and detention invoices to U.S. exporters/importers.

USDA Cooperator Funding: ASTA has been a cooperator with the USDA Foreign Market Development (FMD) program since 1963 and the Market Access Program (MAP) since in 1994. These grant programs are matched with private sector dollars to enhance market access for the U.S. seed industry, and to promote favorable and harmonized policies globally. ASTA works

closely with USDA Foreign Agriculture Service (FAS) Posts around the world, as well as with APHIS, the U.S. Plant Variety Protection Office, and FAS Washington, DC.

Intellectual Property Rights

One of the most pressing issues of our time is the development of crops that will enable farmers to feed the increasing world population in a sustainable fashion while protecting the environment. In the past, significant investments in crop breeding and development were primarily funded by the public sector. These investments took place through national and international research systems. For various reasons funding for these systems has decreased. There is, therefore, increasing reliance throughout the world upon crop breeding research and product development that is funded by the private sector. On average, 15% of seed companies' revenue is spent on research and development. Both public and private sector supported agricultural research benefit from strong intellectual property protection. The U.S. has a long history and tradition of entrepreneurship founded on successful systems of technology transfer from the public sector to the private sector. Especially true for low acreage crops, public and private partnerships are essential in deploying the strengths of both sectors to bring improved varieties to the marketplace. Strong intellectual property protection will encourage the investment needed to benefit agriculture and society through new products and to maintain the continued increase in crop productivity required to feed the world.

The improvement of crop germplasm is an essential activity of plant breeding. In recent decades private companies have invested heavily in plant breeding and seed production to develop improved cultivars and hybrids. Additionally, the advent of innovations in plant breeding such as gene editing, has facilitated the entry of start-up companies into the agricultural arena, and the subsequent development of crops that can be efficiently and precisely improved will contribute even more to agricultural productivity and genetic diversity.

One of the key drivers of innovation within any industry is the capital that is invested in research and development. R & D investments are generally long-term, many require significant amounts of capital resources and entail large risks. The level of investment in the seed industry is directly related to the effectiveness of the intellectual property protection available. In order to attract the size and scope of investment necessary to develop and bring to market improved plant products, either varieties, hybrids, or products from the use of new breeding tools such as genome editing, investors must have the opportunity to earn competitive returns on their original investment. Markets or countries that provide weak protection are unlikely to attract substantial investments for the research and development of new plant varieties.

There are three ways that intellectual property resulting from such investment and risk-taking can be protected by an inventor: trade secrets, Plant Variety Protection (PVP) and utility patents.

- **Trade secret protection** can be coupled with either licenses or use agreements. Unlike other forms of protection, as long as trade secrets are maintained, the intellectual property never enters the public domain.
- **Plant Variety Protection**, through the 1991 Convention of the International Union for the Protection of New Varieties of Plants (UPOV), provides exclusive marketing rights for varieties, their harvested material, and, optionally, for products made directly from them. These rights extend for a fixed period of not less than 20 years from the date of the grant of the right. In some circumstances, PVP also provides exceptions for experimental

use by third parties for the purpose of plant breeding and new variety development. An optional exception in the PVP act permits farmers to save seed for propagation on their own holdings within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder.

- **Utility patents**, which are granted for a term of 20 years from application in most countries, provide a broad and strong form of protection that in many ways is preferential to license or use agreements. As a result, utility patents generally encourage investments in all facets of plant breeding including germplasm, specific traits or genes and technologies more than any other form of intellectual property available to investors. However, plant varieties are ineligible for patent protection in countries other than the United States, Japan and Australia. In some countries, such as Mexico, utility patents are available, but patent examination has not been implemented for plant varieties.

Protection of intellectual property through the U.S. system of utility patents and PVP puts the protected invention into the public domain when the period of protection for that invention expires.

Worldwide, affordable intellectual property protection systems, including patents and PVP and other methods of protection including trade secret and contracts, should be available to allow new inventions to be protected in the most appropriate manner as determined by the inventor. ASTA encourages voluntary licensing of protected intellectual property. However, any licensing should be at the sole discretion of the intellectual property owner consistent with the form of intellectual property associated with the germplasm.

Further, it's important that IP policies that protect advancements in genetic technologies, such as molecular markers, remain consistent with global agricultural needs. Intellectual property protection systems in the United States and in other countries must be updated and improved if intellectual property protection systems are to continue to serve the public interest by attracting the research investment in plant breeding needed worldwide. ASTA works closely with US PVPO and USPTO to align on key international IP priorities that will help U.S. seed companies enter foreign markets, protect their IP and remain competitive.

Sustainability

Public/private collaborations are critical in advancing climate-smart agricultural and forestry practices. Appropriate policies can incentivize investments in plant breeding innovation including 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.

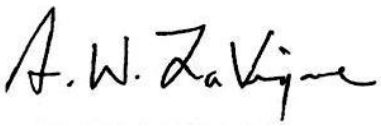
Seed health: Impacts on seed health continue to increase due to effects of climate change. Seed is a global industry, and the international movement of seed can increase the risk of introducing

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 systems approached to reducing phytosanitary risk associated with seeds. The systems approach provides a holistic method 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.

Conclusion

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, and we remain committed to continuing to work closely with our partners at the federal and state levels to further enhance the resiliency of our supply chain systems.

Sincerely,



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