Plant Protection and Quarantine:
Helping U.S. Agriculture Thrive—
Across the Country and Around the World

Animal and Plant Health Inspection Service
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Eradicated 11 of 12 exotic fruit fly outbreaks in the United States that started in 2018 and 2019

Protected more than 661 million acres of valuable farmland caused by grasshoppers and Mormon crickets

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Provided $36.5 million to support 27 clean plant centers in 12 States and Territories that diagnose, clean, and distribute disease-free stocks of tree fruits, grapes, hops, barley, citrus, sweet potato, and more to growers

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Message From the Deputy Administrator

Five years ago, we challenged ourselves to find new and better ways to help U.S. agriculture thrive—across the country and around the world. We set in motion an ambitious agenda to transform the United States’ plant health safeguarding system and make agricultural trade safer. At the same time, we invested in our employees and took steps to make our organization stronger.

Since then we’ve made significant progress. We implemented risk-based sampling in our plant inspection stations and started implementing it in the maritime cargo environment, helping to focus inspections on imported shipments that are more likely to have a pest problem. We continue testing and evaluating the use of molecular diagnostics at U.S. ports of entry because of their potential to help speed the clearance of low-risk cargo and detect high-risk pests that physical inspection would miss.

Domestically, we improved the collection, management, and accessibility of quality data to strengthen policy and operational decision making. We also trained canines to find specific pests in the field, including Mexican fruit fly, plum pox virus, and coconut rhinoceros beetle. Soon, these dogs could help PPQ determine an infestation’s boundaries, identify pest-free areas, and detect traces of insect larvae or plant diseases in imported cargo and mail.

Internationally, we led the development and implementation of the International Plant Protection Convention’s global ePhyto system, which allows countries to electronically exchange fraud-resistant phytosanitary certificates at very low cost. These critical documents make trade safer by attesting that a country’s exports meet the importing country’s plant health requirements. We also worked with our Canadian partners and the maritime industry to form the North American Sea Container Initiative (NASCI), which promotes best practices for cleaning sea containers to reduce the global spread of pests.

These advancements have positioned us to realize significant results for U.S. agriculture. Working with our State and industry cooperators, we have achieved an astonishing number of plant pest and disease eradications from the United States in the last 5 years. They include plum pox virus, the world’s most devastating stone fruit disease; pink bollworm, which used to cost the U.S. cotton industry $32 million annually in control costs and yield losses; European grapevine moth, which threatened California’s $4 billion annual grape crop; and dozens of exotic fruit fly outbreaks in California, Florida, and Texas, which threatened billions of dollars’ worth of crops in those States.

In addition, we declared the tree-killing Asian longhorned beetle eradicated from all areas of New York City and parts of Ohio.

On the trade side, our work has supported U.S. agricultural exports valued at $137 billion annually on average between 2015 and 2019. For example, in 2019 we opened the market for U.S. blueberries to Vietnam with an estimated value of $10 million upon maturity; in 2018, corn to Myanmar with an estimated value of $6 million; and in 2017, U.S. rice (estimated market of $40 million) and California strawberries (estimated market of $10 million) to China. Over the last 5 years, APHIS and cooperators issued over 880,000 phytosanitary certificates annually on average for U.S. plant and plant product exports. We negotiated with foreign governments to release more than 1,400 U.S.-origin plant and plant product shipments worth nearly $300 million that were held at ports abroad due to paperwork issues or plant health concerns. And, we worked with 182 International Plant Protection Convention members to adopt 47 new international standards and protocols that facilitate safe agricultural trade.

I am pleased to share these and many other achievements in the pages of this report. I am also excited to work with all of you—our employees, partners, and stakeholders—as we look to the future and challenge ourselves again to find even more ways to help U.S. agriculture thrive—across the country and around the world.

Sincerely,

Osama El-Lissy
Deputy Administrator
Plant Protection and Quarantine
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
We safeguard U.S. agriculture and natural resources against the entry, establishment, and spread of economically and environmentally significant pests and facilitate the safe trade of agricultural products.
Helping U.S. Agriculture Thrive—Across the Country and Around the World

Strengthening Pest Exclusion

To protect American farms and forests from harmful plant pests and foreign animal diseases, PPQ has created a system of safeguards that begins overseas in other countries, continues through U.S. ports of entry, and extends across the Nation. It’s called the Safeguarding Continuum. All along the continuum, PPQ experts assess risk associated with pests that hitchhike on and in the agricultural products we import and take action to protect U.S. agriculture and natural resources while keeping international trade and travel moving.

In our 2014 to 2019 Strategic Plan, we established two objectives for strengthening safeguarding along this continuum. The first: to address risks at the first opportunity—when the likelihood of pest exclusion is greatest. The second: to make better use of the information we collect at each point along the continuum to target and reduce threats to U.S. agricultural and natural resources.

Throughout 2019, we made significant progress in three strategic initiatives we introduced in 2018. These initiatives help us use available resources in a way that maximizes risk management all along the Safeguarding Continuum. They include developing an offshore greenhouse certification program to minimize the risk associated with the high volumes of plant cuttings that enter our country every day, implementing risk-based sampling to maximize the effectiveness of our port-of-entry inspections, and moving closer to operational use of molecular diagnostics at our ports of entry to detect high-risk pests that physical inspections would miss.

Taking the Fight Offshore

One of the most effective ways to ensure the safe movement of commodities and other products into the United States is to address pest threats where they originate. When we take action to prevent or deal with pests in imported goods before they reach our shores, we significantly increase our ability to protect the health and marketability of our Nation’s agricultural and natural resources.

Pre-Clearing Commodity and Military Shipments

In 2019, our commodity pre-clearance program spanned 26 countries and covered 72 different types of commodities. Through this program, we inspected and pre-cleared 4 billion pounds of fresh fruits and vegetables and more than 1 billion plants and bulbs. This work not only ensures the safety of imported commodities, but also benefits importers whose inspected, pre-cleared, and certified products may pass through U.S. ports of entry without delay.

To help the U.S. military prevent the spread of foreign animal diseases and plant pests, we worked with the U.S. Department of Defense to inspect military equipment, cargo, and household goods returning stateside. This included inspecting 1,377,850 military passengers, 405,588 shipments of personal goods (including household goods and vehicles), and 513,157 pieces of cargo in fiscal year 2019 before they returned stateside, facilitating military readiness by speeding the safe entry of these items into the United States.

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Expanding Offshore Certification

PPQ oversees overseas treatment and production facilities that ship high-demand, large-volume commodities to the United States, such as ornamentals, tropicals, and roses. These facilities are critical to U.S. agriculture. To protect our plant health from harmful, invasive pests and serious plant diseases, PPQ requires that these offshore facilities demonstrate compliance with our standards. In 2020, PPQ formally established the program in 23 countries, expanding the number of offshore facilities that ship high-demand, large-volume commodities to the United States, such as orchids, geraniums, Dracaena, and niger seed, a common ingredient in bird seed. These certifications verify that the facility and its operations meet our standards and traceability protocols that reduce pest risks.

During the trial program, PPQ personnel at the Miami plant inspected the first importations of ornamentals processed under the program containing 1.3 billion cuttings from certified and non-certified facilities to compare pest action rates. Throughout the last 2 months of the program, certified facilities consistently averaged 90 percent compliance, and several facilities repeatedly averaged 100 percent compliance. Based on the results, PPQ will formally establish the program in 2021. The voluntary certification program will help reduce pest pressures at U.S. ports while providing importers of plants with a way to strengthen their U.S. regulatory status. In total, PPQ inspectors at our 16 plant inspection stations cleared 21,270 shipments containing more than 1.75 billion plant units and 550 tons of seeds, a 15 percent increase compared to 2018.

Teaming Up With Other Countries To Prevent Pest Spreads

Through the Greater Caribbean Safeguarding Initiative, PPQ has partnered with 15 Caribbean countries to implement the Don’t Pack a Pest traveler outreach program. The program, which requires participating offshore facilities to adhere to minimum production and sanitation standards and traceability protocols that reduce pest risks, is designed to prevent the introduction and spread of high-risk pests and quarantine pests. The program is coordinated by the Caribbean Exotic Pest Insect and Disease Management Program. Through the Greater Caribbean Safeguarding Initiative, PPQ has partnered with 15 Caribbean countries to implement the Don’t Pack a Pest traveler outreach program. The program, which requires participating offshore facilities to adhere to minimum production and sanitation standards and traceability protocols that reduce pest risks, is designed to prevent the introduction and spread of high-risk pests and quarantine pests. It is coordinated by the Caribbean Exotic Pest Insect and Disease Management Program.

In 2020, PPQ concluded a 2-year trial program for offshore tropical plants that are not established on the mainland. These plants, including ctenanthe, fern, polka dot, and others, are at risk to mainland agriculture. To prevent their spread, PPQ inspected nearly 1.76 million passengers’ bags in Hawaii and Puerto Rico before they left for the mainland. This work safeguards mainland agriculture. To prevent their spread, PPQ inspectors conducted 99,131 inspections and intercepted 1,985 quarantine pests. We also conducted 9,131 inspections and intercepted 1,985 quarantine pests. In 2020, PPQ inspectors intercepted nearly 1.36 million passengers’ bags in Hawaii and Puerto Rico before they left for the U.S. mainland, intercepting 284,683 prohibited agricultural products and 1,985 quarantine pests.

Facilitating Safe Trade and Travel Between Hawaii, Puerto Rico and the Mainland

Hawaiian and Puerto Rican travel is part of the United States, and having service to these islands is critical to our nation’s economy. PPQ recognizes this unique landscape, and nearly half of all plants sold in U.S. retail stores are from Hawaii and Puerto Rico, while part of the United States, States, and non-certified facilities to compare pest action rates. In addition, we expanded public outreach to travelers moving between the United States and the Caribbean to raise awareness about the importance of declaring agricultural items when they arrive in the United States, helping to reduce the threat of fruit flies and other pests in this high-risk pathway. Together, these advances are strengthening our ability to exclude pests, focus resources on the highest risks, and protect our nation’s agricultural security at the speed of commerce.

Establishing an Advanced Analytics Team

At the core of our daily work, PPQ and our CBP and States partners collect a tremendous amount of port interception and passenger data. PPQ is maximizing that data’s value by establishing an advanced analytics team, an area that applies quantitative methods—such as network analysis, information theory, data mining, simulation, and optimization—to predict future events or discern patterns that would be otherwise undetectable. These methods help us anticipate or stop incursions. To realize this capability, PPQ created an Advanced Analytics Team in 2019. The analytics team will continually mine and analyze the complete and ever-evolving phytoplankton landscapes in which we operate. They will use advanced quantitative methods to help us better predict future pests in this high-risk pathway and refine new or not-yet-imagined strategies for addressing plant health threats as they are emerging, and in some cases, before they even happen. For example, the team will work on analyzing trends in pest interception data.
PPQ and U.S. Customs and Border Protection conducted a successful trial program to expand risk-based sampling use in the cargo environment at the ports of entry.

Using molecular diagnostics, PPQ sequenced the Asian strain of the tomato brown rugose fruit virus (ToBRFV) from California and Florida grocery stores and a single infected tomato plant was found in a community garden in Florida in 2019. PPQ took immediate action to safeguard U.S. tomato and pepper production worth more than $2.3 billion annually against tomato brown rugose fruit virus (ToBRFV), which can cause severe fruit loss. In 2019, PPQ took immediate action to safeguard U.S. tomato and pepper production worth more than $2.3 billion annually against tomato brown rugose fruit virus, which can cause severe fruit loss.
We work across the country to detect prohibited products and foreign pests and diseases that threaten our nation’s crops, livestock, and forests. In 2019, PPQ seized 4,331 prohibited agricultural items valued at over $2.3 million from retail stores, internet sales, and during cargo container inspections, removing prohibited products from commerce and harboring invasive plant pests or foreign animal diseases that could harm our crops, livestock, or forests. PPQ officers scour markets and retail stores while analysts monitor internet sales looking for prohibited or restricted agricultural products that may have slipped into the United States.

Finding Pests Before They Cause Harm

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When foreign pests capable of harming our Nation’s forests, damaging U.S. crops, or disrupting trade become established in the United States, PPQ works closely with Federal, State, Tribal, and industry partners to control and, when possible, eliminate them from our country. In 2019, we eradicated a number of plant pests and contained and suppressed others to prevent their spread and keep export markets open.

In our Strategic Plan, we established two objectives for optimizing pest management and eradication. The first: to more fully coordinate with and engage our partners to determine where we can and should focus our resources to yield the greatest results. The second: to explore how we might integrate and wisely use the unique capacities of all partners to strengthen and extend PPQ’s domestic programs.

In 2019, we advanced three strategic initiatives that we introduced last year. These initiatives make use of the latest technologies to strengthen our effectiveness and deliver more results for the industries we serve. They include improving data-driven decision making in our domestic pest programs, exploring the use of unmanned aircraft in field operations, and expanding the use of canines for surveys and other pest detection activities.

On the Cutting Edge of Plant Health Protection

PPQ continuously evaluates, adapts, and adopts the best available science, tools, and technologies to improve its plant protection methods. From the use of mobile data collection tools to unmanned aircraft, these advances keep PPQ and its partners on the cutting edge in the fight against harmful plant pests and diseases.

Expanding the Use of Canines and Unmanned Aircraft

PPQ has been working on a number of initiatives to make our pest management and eradication programs more efficient and effective. One of these initiatives included challenging our dog teams to detect a wide range of plant pests and diseases, such as Rhinoceros (oak, rhinoceros) beetle (CRB). Following several years of successful trials in controlled and natural environments, we deployed two canine teams trained to find CRB in Hawaii in October 2019. We plan to finish training and make the CRB-detecting canine team fully operational in 2020. We have also launched a trial project with an independent canine facility to determine whether canine teams could detect spotted lanternfly egg masses.

On top of these efforts, we continue to train canine teams to detect prohibited agricultural products in international cargo, passenger bags, and mail parcels that could carry foreign plant pests or animal diseases, such as African swine fever, into our country and seriously harm our country’s livestock, forests, farms, and environment—and the livelihoods of America’s farmers and ranchers.

For several years, we have been exploring how we could use unmanned aircraft systems (UAS) to support a range of operational needs, including releasing sterile insects, surveying trees, and monitoring rangeland health. Recently, we have started optimizing those systems that proved feasible and cost-effective for field use. To support this effort, we hired a Methods Development Engineer and trained two employees as UAS remote pilots. We also obtained an exemption from the Federal Aviation Administration allowing us to perform agricultural-related services nationwide with small UAS, including aerial pesticide applications to support eradication programs.

In late 2019, PPQ deployed two canine teams operationally to sniff out coconut rhinoceros beetles in Hawaii.
 Helping U.S. Agriculture Thrive—Across the Country and Around the World

Turning Innovation Into Action

The Agricultural Act of 2014 authorized a permanent funding mechanism for the National Clean Plant Network and the Plant Pest and Disease Management and Disaster Program. This program is in alignment with funding that strengthens the Nation’s infrastructure for pest detection and notification, identification, and these mitigations, while working to safeguard the nursery production system. In 2019, PPQ funded $6.35 million to support 27 clean plant centers. These centers diagnose, clean, and distribute disease-free planting stock, helping U.S. specialty crop producers stay competitive in the global marketplace.

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We selected projects through an intensive, criteria-driven process to ensure we wisely invest our resources, and those of our cooperators, to support priority initiatives and respond to threats that could jeopardize U.S. specialty crop production. In 2016, funded projects supported comprehensive efforts against the spotted lanternfly in Pennsylvania, New York, New Jersey, Virginia, Delaware, and North Carolina; eradicating EAB in Florida and Texas; various detection, methods development, or outreach projects to prevent forest pests from 12 States; citrusunya curvata in California and Louisiana; and extended surveys for quarantine pests and diseases in 15 States. In addition, we provided $552,856 to support 23 dairy plant surveys in 12 States and Territorial that diagnoses, clean, and distributes disease-free stock of beef trash nerve, goats, hogs, bison, citrus, sweet potatoes, and stone to growers.

Maximizing PPQ and Partner Actions

To deliver results successfully, we must fully capitalize on our partnerships and continue to improve our data collection. We work with numerous groups to fight against invasive plant pests, like power and industry associations, State and local officials, academia, other Federal agencies, and local governments. Our most important domestic partner in the National Plant Board (NPB)—an organization of plant regulatory officials from State departments of agriculture, we are building a data warehouse that will immediately provide PPQ and cooperative pest plant disease data for efficient access and stronger decisions. As a result of these efforts, we have already successfully created a spatially coherent model that works well based on the livelihood of information, helping stakeholders make critical decisions about future survey.

Eradicating Cotton Pests

PPQ has worked with the cotton industry, all Federal agencies, and Mexico to eradicate two of the most destructive cotton pests—boll weevil and pink bollworm—from all commercial cotton-producing areas in the United States. As a result of well-coordinated efforts, PPQ and cooperators have eliminated boll weevil from 95 percent of the United States. In 2019, PPQ entered into the fourth year of a cooperative agreement with the North American Plant Protection Organization to help fund boll weevil treatments in northern Mexico. This agreement also allows for the use of Federal and State funds to eradicate boll weevil in the Lower Rio Grande Valley and 87 percent in Tamaulipas, Mexico.

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To deliver results successfully, we must fully capitalize on our partnerships and continue to improve our data collection. We work with numerous groups to fight against invasive plant pests, like power and industry associations, State and local officials, academia, other Federal agencies, and local governments. Our most important domestic partner in the National Plant Board (NPB)—an organization of plant regulatory officials from State departments of agriculture, we are building a data warehouse that will immediately provide PPQ and cooperative pest plant disease data for efficient access and stronger decisions. As a result of these efforts, we have already successfully created a spatially coherent model that works well based on the livelihood of information, helping stakeholders make critical decisions about future survey.

Eradicating Cotton Pests

PPQ has worked with the cotton industry, all Federal agencies, and Mexico to eradicate two of the most destructive cotton pests—boll weevil and pink bollworm—from all commercial cotton-producing areas in the United States. As a result of well-coordinated efforts, PPQ and cooperators have eliminated boll weevil from 95 percent of the United States. In 2019, PPQ entered into the fourth year of a cooperative agreement with the North American Plant Protection Organization to help fund boll weevil treatments in northern Mexico. This agreement also allows for the use of Federal and State funds to eradicate boll weevil in the Lower Rio Grande Valley and 87 percent in Tamaulipas, Mexico.
Grasshoppers and Mormon Crickets:

Grasshoppers and Mormon Crickets are two major pests of agricultural crops in the United States. Grasshoppers, which can reach lengths of up to 5 inches, are known for their ability to jump long distances, while Mormon crickets are larger, measuring up to 9 inches in length. Both species can cause significant damage to crops and range land by feeding and burrowing into the soil.

Imported Fire Ant (IFA):

Imported fire ants are an invasive pest that has spread throughout the southern United States, causing considerable economic and environmental damage. The ants are known for their aggressive behavior, stinging ability, and ability to form large nests that can disrupt agricultural operations.

Supporting Specialty Crops

PPQ works with States and Tribes to partner on pest control efforts, which help protect specialty crops from invasive species. These efforts include research, development of new technologies, and regulatory framework.

Research remains a critical priority if we're going to ensure the safety of U.S. citrus industry operations and the long-term growth of the U.S. citrus industry. Since 2013, PPQ has led the HSAB multi-agency coordination group, which has invested nearly $95 million to expand the development of tools that could help the U.S. citrus industry fight back against HLB. Projects have focused on four critical areas: ACP control, infected tree therapies, technologies to prevent new plantings against HLB infection, and early detection.

In 2019, based on survey results and the needs of land managers, PPQ treated more than 14,000 acres of rangeland, helping to protect approximately 230,000 acres of cropland and forage land. This work also helped control newt grasshopper and Mormon cricket treatments, when conditions warrant, helping to protect more than 661 million acres of rangeland and forage land worth over $8.7 billion.

At the request of Tribes, industry groups, and public landowners, PPQ coordinates area-wide grasshopper and Mormon cricket treatments, when conditions warrant, helping to protect more than 661 million acres of rangeland and forage land worth over $8.7 billion.
In 2019, PPQ continued to work closely with the New York State Department of Agriculture and Markets and the Canadian government to control the pest in the United States and maintain key export markets. A plant quarantined in New York became the focus of an 8.5-mile radius in the southeastern part of New York. In Idaho, PPQ and partners continue to reduce viable pale cyst nematode populations since it was first detected in 2006. The program’s containment measures and robust detection methods have prevented spread of pale cyst nematode outside of an 8.5-mile radius in the southeastern part of the State. To help stop 90 percent of the State’s potato acreage free of this pest. In 2019, the program quantified more than 2,500 pieces of farm equipment sanitized more than 2,500 pieces of farm equipment and collected and screened approximately 24,000 soil samples in Idaho for the presence of pale cyst nematode. PPQ continued to support research into alternative to methyl bromide treatments for infested fields, which use crops that are resistant to the nematode. In 2019, PPQ employees collected soil samples in an Idaho potato field to screen for pale cyst nematodes, a major potato pest. These surveys are necessary to detect the pest and protect U.S. access to valuable export markets.

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Combating Tree Pests

PPQ continues its battle against two destructive, wood-boring beetles: the Asian longhorned beetle (ALB) and the emerald ash borer (EAB). ALB is an invasive insect that feeds on a wide variety of trees in the United States, eventually killing them. If we were to become established here, the beetle could become one of the most destructive and costly pests ever to enter the country. The beetle threatens urban and suburban shade trees, agricultural resources such as pasture, and forest resources and wildlife. It could also harm industries such as maple syrup production, lumber trade, timber processing, nurseries, and tourism.

The ALB most likely came to the United States inside wood packaging material from Asia. Since 1996, the beetle has been found in five States: New York (1996), Illinois (1998), New Jersey (2002), Massachusetts (2008), and Ohio (2011). We have eradicated infestations in Illinois, New Jersey, and parts of New York, Massachusetts, and Ohio. In 2019, we declared eradication in those Ohio counties.

So far, we have released these wasps in 20 States and 30 counties, the District of Columbia, and 3 Canadian provinces. During 2019, PPQ released wasps in 3 new States (Rhode Island, Vermont, and Florida Island) and 74 new counties. The goal of releasing these biocontrol agents is to have them establish, reproduce, and more importantly, attack and kill EAB. In 2019, PPQ reared and released 20 percent more of these stingless wasps than we did in 2018. A total of 790,282 wasps were released in 2019 to help control EAB populations and protect U.S. ash trees.

Program against EAB has been more elusive. Despite best efforts, the demoiselle population has not stopped the pest from significantly expanding its range. It is now found in 21 States and the District of Columbia, and it has killed more than 100 million ash trees. In 2019, APHIS published a proposed rule to end our domestic regulatory activity, which included setting quarantine orders, working with states, and releasing beneficial agents. If we decide to end the domestic activities, PPQ would instead focus on developing and releasing biological control approaches (biocontrol) to manage the pest.

For several years, PPQ has used EAB’s natural enemies—tiny stingless wasps—as biocontrol agents. So far, we have released these wasps in 20 States and 30 counties, the District of Columbia, and 3 Canadian provinces. During 2019, PPQ released wasps in 3 new States (Rhode Island, Vermont, and Florida Island) and 74 new counties. The goal of releasing these biocontrol agents is to have them establish, reproduce, and more importantly, attack and kill EAB. In 2019, PPQ reared and released 20 percent more of these stingless wasps than we did in 2018. A total of 790,282 wasps were released in 2019 to help control EAB populations and protect U.S. ash trees. Early observations show that young reproducing ash trees are benefiting from these biocontrol releases.

Spotted Lanternfly

PPQ and our cooperators used over $30 million in federal funds in FY 2019 to continue addressing the spotted lanternfly (SLF) infestation in the southeast portion of Pennsylvania and seven other States: Delaware, Maryland, New Jersey, New York, North Carolina, Virginia, and West Virginia. These eight states have joined together in the cooperative fight against this pest. Our goal is to detect, contain, control, and suppress SLF populations and help protect agricultural and forest industries. To accomplish this goal, we are carrying out an area-wide integrated pest management strategy that includes detecting surveys, conducting surveillance, and generating feedback reports. APHIS is not planning to enact a Federal quarantine at this time. Instead, States are enacting quarantines to prevent its further spread. Several State quarantines require businesses and organizations to obtain a permit before they move products, vehicles, or other conveyances within or out of SLF-quarantined areas. The permit details include the businesses must meet in the permit’s guidelines. The businesses must meet the permit’s requirements.

In 2019, APHIS launched a robust SLF public awareness effort through Hungry Pests, our invasive species outreach program. This effort included online video, public service announcements, social media posts, outreach materials, a business action kit, and English- and Spanish-language radio media tours. Throughout 2019, APHIS supported the SLF Cooperative Program for Pennsylvania and other States to ensure consistent messaging and outreach coordination. PPQ and 22 States will survey for SLF in 2020 through the Cooperative Agricultural Pest Survey program. These surveys will help us quickly detect and rapidly respond to incursions of this pest from other parts of the world. Already, 22 States have joined us in the cooperative program.

At our Brighton, MI, facility, PPQ rears stingless wasps that attack and kill the emerald ash borer beetle. In 2019, a total of 790,282 wasps were released in 20 States and the District of Columbia to help control beetle populations and protect U.S. ash trees.
also infect wild, backyard, and urban stone fruit plants. Vulnerable to other, potentially fatal viruses. PPV can infect cherries, nectarines, peaches, and plums, among other susceptible stone fruit varieties. Consequently, during years of severe PPV outbursts, fruit tree production has dropped.
Helping U.S. Agriculture Thrive—Across the Country and Around the World

Making Agricultural Trade Safe and Supporting U.S. Exports

When global trade brings tremendous benefit, it also brings risk. Potentially harmful plant and animal pests and diseases can hitchhike on or in the plants, fruit, vegetables, and other products we trade. To help the world move billions of dollars in commodities without spreading invasive pests and diseases, PPQ works with countries around the globe to promote a safe, fair, and predictable trade system. This system, built on internationally and regionally harmonized, science-based plant health measures, not only reduces pest risks, but also helps to create a level playing field for U.S. products abroad.

In our Strategic Plan, we set a goal of increasing the safety of agricultural trade and expanding economic opportunities for U.S. products in the global marketplace by promoting widespread use of science-based standards, resolving plant health barriers to trade, and helping U.S. producers meet foreign market access requirements.

Two years ago, we introduced four strategic initiatives that promise to make agricultural trade more predictable, fair, and safe. They include achieving the electronic exchange of phytosanitary certificates through a global ePhyto system, developing a regulatory framework to manage pest risks linked with the international movement of seed, developing strategies to address pest risks from electronic commerce, and promoting the use of voluntary guidelines to reduce pest risks associated with the global movement of sea containers.

Creating a Safe, Smooth-Functioning Trade System

PPQ sits at the negotiating tables of two of the world’s renowned plant health standard-setting organizations: the International Plant Protection Convention (IPPC) and the North American Plant Protection Organization (NAPPO). Through these forums, PPQ is building important international and regional relationships that help the United States advance plant health protection standards and harmonized regulatory approaches that are necessary for the free separation of global agricultural trade.

At the regional level, PPQ helped NAPPO conduct a workshop in Costa Rica on seed health and trade in March 2019 for more than 50 government and industry participants from the Americas. The workshop focused on implementing ISPM 38, the international standard for seed trade. The workshop advanced the importance of harmonizing seed trade requirements among countries in the Americas.

Promoting Safe Trade Through Effective International Collaboration

Strategic international relationships are critical to achieve a safe, fair, and predictable trade system. These relationships create a stronger basis for addressing trade-related pest and disease threats, resolving plant-health trade problems, establishing science-based trade standards, and advancing mutually beneficial trade goals. For example, PPQ worked with the IPPC’s other 182 member countries in 2019 to adopt 8 new international standards, including one on the use of fumigation as a phytosanitary measure. This standard will increase the safety of bilateral trade by harmonizing operational requirements for fumigation treatments of plant commodities to prevent pest introductions.

In 2019, PPQ worked through the International Plant Protection Convention to encourage global adoption of eight new science-based trade standards that contribute to a safe, fair, and predictable trade system.

At the regional level, PPQ helped NAPPO conduct a workshop in Costa Rica on seed health and trade in March 2019 for more than 50 government and industry participants from the Americas. The workshop focused on implementing ISPM 38, the international standard for seed trade. It reviewed procedures for establishing phytosanitary import requirements, inspection guidelines, seed sampling and testing, and guidelines for notifying media for export and re-export. The workshop also advanced the importance of harmonizing seed trade requirements among countries in the Americas.
Advancing the Global Use of Modern Technologies

To improve plant protection services in the Africa region and to understand why certain products are regulated and how to connect their countries to the global ePhyto hub. In 2019, PPQ hosted a workshop in 2019 for plant health officials from 23 African countries to help them learn how to connect their countries to the global ePhyto hub.

Since 2009, this group, known as the “Quads,” has effectively promoted safe trade concepts and the risk of food safety hazards. ReFreSH leverages the internationally recognized system for reducing the spread of hitchhiking pests.

Two years ago, PPQ took the first step toward creating a holistic systems approach to reduce risks associated with e-commerce and sea containers. In addition, we've started developing a systems approach; and drafted a ReFreSH accreditation standard to guide participation in the ReFreSH framework; developed the scope, history, and design of ReFreSH; developed commodity to help define the ReFreSH framework; and finished a joint PPQ-industry concept paper describing the benefits, farmers, and design of ReFreSH.

In 2019, PPQ began working on developing partners, global shipping organizations, and other relevant industries to promote practical, voluntary guidance for cleaning sea containers and preventing the spread of hitchhiking pests.

PPQ has been working on the internationally recognized system for reducing the risk of food safety hazards. ReFreSH leverages industry best practices for managing pest risk, making international seed movement safer. In 2019, we made good progress in advancing ReFreSH. We continued pest risk assessments for three representative seed commodities, and internet-based trade.

For nearly a decade, PPQ has been monitoring the online trade of plants, plant and animal products, and live plants, and we have started developing strategies to effectively address risks associated with these imports. In 2019, we continued to build relationships with many of the larger online retailers, especially those using social media to promote product movement. We appointed a variety of tasks to execute and identify regulated products sold online and continue to investigate new tools. We also shared e-commerce, industry best practices for managing pest risk, making international seed movement safer.

In 2019, PPQ helped the North American Plant Protection Organization conduct a workshop on the international standard for seed movement and the importance of harmonizing seed trade requirements among countries in the Americas.

In 2019, PPQ hosted an ePhyto workshop for 27 plant health officials from 23 African countries to help them learn how to connect their countries to the system, either through a national system or via the global system. In addition, PPQ was able to share key phytosanitary tools and knowledge with workshop participants, helping to improve plant protection services in the Africa region and strengthening our relationship with our African plant health counterparts.

In 2019, PPQ has continued to help the global community tackle high-risk pest pathways such as sea containers, international seed trade, and e-commerce trade.

In 2019, we worked with the Canadian Food Inspection Agency, U.S., and Canadian border protection agencies, North American shippers, and global shipping companies to promote the use of practical, voluntary guidance for cleaning and inspecting sea containers. In April, we promoted the initiative at the 2019 IPC Commissions on Phytosecurity Measuring, highlighting the North American approach to managing the sea container pathway. And in September, we hosted the IPC Sea Container Task Force meeting in Baltimore, MD. This meeting brought together experts from seven countries, including national government officials and other relevant industries, IPPC, and representatives from the IPC to standardize global guidance for improving the risk of food safety hazards. ReFreSH leverages industry best practices for managing pest risk, making international seed movement safer.

In 2019, PPQ helped the North American Plant Protection Organization conduct a workshop on the international standard for seed movement and the importance of harmonizing seed trade requirements among countries in the Americas.

In addition, PPQ—work with PPQ and other—promote that the NDPC develop an annex to ISPM 38. The annex would focus on the use of industry seed production practices in systems approach to provide phytosanitary security and quality seed movement. It would provide a valuable alternative to the costly and time-consuming by-enforcement certification approach used now. The IPPC agreed and has made the annex a high priority.

Outside of the IPPC and NAPPO, PPQ continued building influential relationships with key foreign counterparts to advance shared goals. This included regular engagements with the chief plant protection officers of Australia, Canada, and New Zealand. Since 2010, this group, known as the “Quads,” has effectively promoted safe trade concepts and influenced the global plant health policy agenda. This year, the Quads agreed on a coordinated strategy for addressing a number of key issues, such as ensuring future work on commodity-focused standardization and creating new opportunities for exporting specific plant products; enhancing the global approach for managing pest risk associated with e-commerce and sea containers; introducing new concepts for minimizing emerging pest threats at the global level; promoting advanced risk management approaches that will ensure phytosanitary measures are based on and prioritized to actual pest risk; and, advancing the recognition and harmonization of third-party accreditation.

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The World Helping Address Critical High-Risk Pest Pathways

Advancing the Global Use of Modern Technologies

Internationally, PPQ has been instrumental in building the world's first global electronic phytosanitary border system, which went live in 2018. ppq Keystone partnerships are critical documents attesting that a country's plant health requirements. The ePhyto system makes it easier to exchange faster, fewer, and fraud-resistant. At the time of this report, 16 countries, including the United States, 4, and more than 75 countries to the process of adopting the ePhyto system. In November 2019, PPQ hosted an ePhyto workshop for 72 plant health officials from 23 African countries to help them learn how to connect their countries to the system, either through a national system or via the global system. In addition, PPQ was able to share key phytosanitary tools and knowledge with workshop participants, helping to improve plant protection services in the Africa region and strengthening our relationship with our African plant health counterparts.
Helping U.S. Agriculture Thrive—Across the Country and Around the World

Securing Economic Opportunities Abroad for U.S. Producers

U.S. agricultural exports bring significant value to our economy. In 2019, international sales of U.S. farm and food products totaled $136.7 billion. These exports created a trade surplus of more than $4.5 billion, helping to strengthen our economy and support more than 1 million American jobs. PPQ works to negotiate science-based phytosanitary requirements with foreign trading partners and remove plant health-related trade barriers in essential to helping American farmers reach new customers and ensuring that U.S. products are treated fairly in the global marketplace.

Sustaining and Expanding Key Export Markets

Each year, PPQ conducts technical negotiations with countries around the world to open, expand, and retain U.S. access to foreign markets worth nearly $23 billion, including securing access for U.S. corn to Myanmar, expanding access for U.S. rice to Colombia, and retaining access for U.S. soybeans to China.

In 2019, we completed 20 bilateral negotiations and 12 technical negotiations to establish practical, science-based phytosanitary requirements for the safe trade of live plants and food and vegetables. Through these negotiations, we helped the United States realize significant trade opportunities. For example, we opened new markets for U.S. producers, like U.S. blueberries to Vietnam with an estimated value of $10 million upon maturity; and, we secured market access for U.S. shrimp in New Zealand, valued at $14 million, and U.S. escapee to Vietnam, valued at $11 million. We also retained critical export markets, including the European Union, valued at $35.6 billion annually; and Thailand, valued at $61.5 billion annually.

In addition, we successfully resolved phytosanitary issues for 243 shipments of U.S. origin products worth $10 million. We also retained critical export markets, including the European Union, valued at $35.6 billion annually; and Thailand, valued at $61.5 billion annually.

PPQ is conducting a 3-year survey of soybeans as they move from the farm to local, regional, and export grain elevators in 29 States to learn more about weed seed levels at each point in the supply chain. We are using this information to help industry reduce weed seed levels in key exports.

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One of the most significant plant health issues facing U.S. exporters, particularly soybeans, is weed seeds. To help U.S. producers and exporters overcome these potential trade barriers, we collaborated with other USDA agencies, industry, and academia to develop a systems approach designed to reduce weed seeds in U.S. grain exports. The systems approach includes weed management strategies; harvesting, handling, and storage best practices; and trade support to help maintain the flow of U.S. soybeans to quality addressing any technical issues associated with export shipments. We began implementing the systems approach with the soybean industry in 2018. In 2019, we facilitated the export of more than 23.1 million metric tons of soybeans to China without any interceptions.

The systems approach embodies a 3-year national survey of soybean fields from the 2018 crop as they moved from the farm to local, regional, and export grain elevators to 39 States to learn more about weed seed levels at each point in the supply chain. We will repeat the survey with the 2019 crop. We are using the information we collect to objectively determine levels of weed seed contamination in U.S. soybeans at key points across the supply chain, including at the farm gate, at local and regional elevator, and at export; on that industry can target actions to reduce contamination.

Certifying the Health of U.S. Experts

U.S. exporters rely on PPQ and its State and county partners to inspect and certify plants and plant products being shipped to markets overseas. These expert inspectors ensure that the United States is presenting products that meet the importing countries’ requirements. Thanks to PPQ’s electronic certification system, the once time-consuming, manual process of issuing phytosanitary certificates is now fast, efficient, and traceable. PPQ also maintains a database of foreign countries’ plant and plant product import requirements. With these tools, our nationwide teams of Export Certification Specialists and their cooperators issued more than 674,000 certificates in 2019.

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Case Study: Cultivating a New Approach to Seed Health

To be competitive in today’s global market, U.S. producers need access to diverse varieties of healthy seed from around the world. They also need sufficient safeguards to protect their industries against the introduction and distribution of damaging seed-borne diseases. That’s why PPQ has been working with the U.S. seed industry, international, and domestic partners, and scientific organizations to develop smart regulatory strategies that will help reduce pest contamination during seed production and facilitate healthy seed trade.

Creating a Seed-Specific Standard

To address some of these issues, PPQ worked through the International Plant Protection Convention—an international forum made up of 184 member countries, including the United States—to adopt the International Standard for Phytosanitary Measures (ISPM 38) for the international movement of seeds. “This standard helps national plant protection organizations identify, assess, and manage the pest risk associated with the global movement of seeds for planting,” said John Greifer, Assistant Deputy Administrator for International Phytosanitary Standards. “Its guidance harmonizes how countries identify, assess, and manage pest risks across the seed production continuum. This approach is known as ‘ReFreSH’—short for the Regulatory Framework for Seed Health.”

ReFreSH is based on the internationally recognized principle for reducing the risk of safety hazards and disease. It reduces厘行业 best practices and uses systematic risk management measures at critical points in the seed production process to verify seed health and make international seed movement safer. It will leverage industry best practices and use testing and integrated pest management measures at critical points in the seed production process to verify seed health and make international seed movement safer.

Four Steps to Implementing ReFreSH

1. Developing a system
2. Production of basic seeds
3. Treatment and manufacture of basic seeds
4. Production of hybrid seed
5. Research and production of parental lines
6. Commercial packaging
7. Final inspection

ReFreSH is based on the internationally recognized principle for reducing the risk of safety hazards and disease. It reduces risk by leveraging industry best practices and using testing and integrated pest management measures at critical points in the seed production process to verify seed health and make international seed movement safer. It will leverage industry best practices and use testing and integrated pest management measures at critical points in the seed production process to verify seed health and make international seed movement safer.

Next Steps

To date, 6 years of work have produced a system that is gaining strength internationally. In August 2018, NAPPO, with support from other regional and national plant protection organizations and industry experts, proposed that the IPPC develop a systems approach annex to the international standard on seed movement. This annex would support national plant protection organizations’ accreditation of systems approach that incorporate existing industry seed production practices, which would provide a valuable alternative to the costly and lengthy consignment-by-consignment certification approach used now.

The IPPC has made the annex a high priority for development,” Greifer noted.

Initial Steps

“Although full implementation of ReFreSH is still many years away, 2019 marked another year of solid progress,” Podleckis said. “PPQ is working to complete the manual and establish first bilateral then multilateral pilots to validate the effectiveness of ReFreSH in reducing pest risk and facilitating safe seed trade.”

International Support Increases

Domestically, PPQ has been working in collaboration with the U.S. seed industry, the National Plant Board, and academia to develop a holistic approach to systematically reduce pest contamination across the seed production continuum. This approach is known as “ReFreSH,” short for the Regulatory Framework for Seed Health.

Regionally, the North American Plant Protection Organizations (NAPPO) and PPQ are promoting the implementation of this standard throughout the Western Hemisphere. In 2016, NAPPO, with PPQ support, hosted an Americas-focused ISPM 38 implementation workshop in Costa Rica.

A Systematic Approach to Reducing Seed-Borne Disease

Domestically, PPQ has been working in collaboration with the U.S. seed industry, the National Plant Board, and academia to develop a holistic approach to systematically reduce pest contamination across the seed production continuum.

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Helping U.S. Agriculture Thrive—Across the Country and Around the World

Strengthening Our Organization

Our Most Valuable Resource: PPQ Employees

Every accomplishment in this report reflects the hard work of PPQ’s diverse and dedicated workforce of nearly 2,900 people. They apply their unique talents and skills to achieve PPQ’s mission and provide global plant protection leadership. The PPQ Management Team is committed to equipping and empowering our employees for continued success.

Preparing PPQ for the Future

To make sure PPQ has the right people with the right skills working on the right things well into the future, we are implementing our Human Capital Plan. The plan, completed in 2018, identified critical skills and knowledge that our workforce will need to have in order to achieve our mission in the coming years. For example, it identified molecular diagnostics as a key area for growth. In 2019, we began developing hiring and training plans to make sure our employees can unleash the full potential of these high-tech testing methods.

In line with our Human Capital Plan, we are actively building our knowledge management capacity. This will ensure we create, retain, share, and apply employee knowledge systematically and strategically. We also worked hard in 2019 to fill mission-critical vacancies. Overall, we hired 477 employees, many of whom were recruited under special hiring authorities, including Schedule A, Veterans’ Recruitment Appointment, and the Peace Corps noncompetitive eligibility programs. To support our new and experienced employees, we offered a wide range of technical and non-technical training throughout the year.

Supporting Employees

In 2017, we established the Center for Advisory Resources for Employees (CARE). CARE includes our Advisory Group, which seeks to strengthen the bonds of cooperation between our unions and management, and a new ombudsman unit. Our ombudsmen are helping employees at every level—management, non-management, union, and non-union—resolve difficult workplace situations and manage conflict in a way that promotes healthy working relationships.

The CARE team travels to work sites that are experiencing a variety of challenges. The team assesses each situation and creates specific action plans—with accountability—to help supervisors create a more productive, healthy, and safe work environment. The team also focuses on what PPQ does right. For example, they visited the Asian longhorned beetle program in Worcester, MA, to learn what makes that work unit such a powerhouse of positive energy and high morale. Through extensive employee surveys, they identified the program’s best practices. Based on what the CARE team learned, they are developing and delivering a workshop on these practices. This workshop will give managers and supervisors the opportunity to engage with and empower their staff. The workshop’s outcome will be a plan for implementing the practices specific to a unit’s work environment and culture.

PPQ leadership wants every employee to have plenty of opportunities for career development and advancement. Over the past 3 years, PPQ’s Guiding Coalition has led the Developmental Assignment Program (DAP). This program gives employees an opportunity to expand their career experiences and gain new skills by working on an assignment outside their normal scope of work. These assignments create products requested by PPQ managers, and all of the DAP products meet key PPQ needs.

Under PPQ’s Developmental Assignment Program, Plant Health Safeguarding Specialist Colin Park, working with National Operations Manager Betsy Randall-Schadel, developed and delivered a project that improves data quality, tracking, and analytics for PPQ’s Phytophthora ramorum program and will facilitate data-driven decisions.

Helping U.S. Agriculture Thrive—Across the Country and Around the World

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Strengthening PPQ With Diversity

PPQ’s workforce diversity is a key element of our mission success. It helps us to reflect the many stakeholders we serve—from consumers and farmers, to importers and exporters, just to name a few—strengthening our effectiveness and credibility. To promote diversity and inclusion at PPQ, we have Civil Rights and Diversity Advisory Committees at the national and local levels. They deliver robust diversity and inclusion programs that celebrate the accomplishments of Americans in underrepresented groups, including women; African Americans; American Indian and Alaska Natives; Asian Americans; Hispanics; Lesbian, Gay, Bisexual, and Transgender Americans; and veterans. The National Committee also works with the PPQ Management Team to address equal employment opportunity (EEO) issues and establish strategies to achieve PPQ’s EEO goals and objectives.

In addition, this year, one of the committee members joined the board of USDA’s Hispanic American Cultural Society (HACS) as APHIS’ representative. HACS’s mission is to promote personal and professional growth through diversity at USDA.

In 2019, PPQ’s Diversity and Inclusion Work Group—a strategic planning group that complements the efforts of PPQ’s National Civil Rights and Diversity Advisory Committee (NCRDAC)—completed its report on a “Living” Diversity and Inclusion Plan. The plan will help employees understand that diversity encompasses a wide range of experiences, knowledge, and strengths, and that employee diversity in age, background, ethnicity, physical abilities, beliefs, sex, and other attributes makes them better able to accomplish PPQ’s mission and goals. Its key strategies include providing accommodations and tools for recruitment and outreach to improve the diversity of the PPQ workforce; enhancing recruitment efforts for hiring initiatives and goals; creating a list of resources and tools that selecting officials can use to help diversity their work unit’s mission and goals; and creating a tool to monitor the implementation of each goal and its objectives.

In addition, the NCRTAC published the PPQ 2019 Diversity and Inclusion Planning Tool. This highly visual year-at-a-glance calendar highlights special heritage months, events, meetings, and other actions. PPQ staff use it to participate in planned EEO and civil rights activities or to plan their own activities. In addition, the year, one of the committee members joined the board of USDA’s Hispanic American Cultural Society (HACS) as APHIS’ representative. HACS’s mission is to promote personal and professional growth through diversity at USDA.

Field Operations Outreach Coordinator Camille Monte (left) talks with Cameron Clifton, a student at North Carolina Agricultural and Technical University, during a career fair in September 2019.

We also look externally to strengthen our program delivery through diversity by reaching out to stakeholders who have a limited ability to read, write, speak, or understand English. PPQ has contracted with interpreters and translation service to help us to better serve people with limited English proficiency (LEP) because of their national origin. Employees can use the service as part of their regular work when engaging with industry, stakeholders, and customers. Services include document translation to or from many foreign languages, as well as real-time language interpretation services for the phone to help staff conduct business or exchange important information. This promotes better communication with LEP stakeholders who seek our services or need to understand and comply with our regulations to safeguard American agriculture.

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Recognizing PPQ’s Employees

Every day, PPQ employees give their all to deliver extraordinary results for our stakeholders. This section highlights some of the exemplary work that was recognized in 2019.

American Phytopathological Society Honors PPQ Employees for Scientific Contributions

The American Phytopathological Society (APS) honored three PPQ employees for their work and contributions to the field of plant pathology. These scientists received the recognition during the society’s 111th annual meeting in Cleveland, OH, in August 2019.

Phil Berger

Phil Berger, former Director of PPQ’s Center for Plant Health Science and Technology, received APS’ Excellence in Regulatory Affairs and Crop Security Award for outstanding contributions to regulatory plant pathology, crop security, and trade enhancement efforts. Berger, who retired from PPQ in December 2018 after 16 years of service, advanced the use of diagnostic technologies in regulatory decision making. He championed the development of rapid pest detection techniques and diagnostics for Huanglongbing disease. He also founded PPQ’s National Plant Protection Laboratory Accreditation Program.

Mary Palm

The society named former Pest Management Director Mary Palm, who retired in May 2019 after 35 years of PPQ service, as the APS 2019 Fellow. Palm’s work has had significant impact on the field of plant pathology, especially in the areas of mycology, fungal systematics, and regulatory plant pathology. Throughout her career, she also excelled as a leader and role model. Deeply committed to APS, Palm served on many committees, including the Mycology Committee and Financial Advisory Committee. She also took on leadership roles, such as the Public Policy Board’s Fellow to the White House Office of Science and Technology Policy and, most recently, as the APS President from 2018 to 2019.

Avijit Roy

Molecular Biologist Avijit Roy received the Lee M. Hutchins Award for 10 years of published research in APS journals on basic or applied aspects of diseases of perennial fruit plants. Roy’s significant contributions to citrus virology included eight research papers on the citrus tristeza and citrus leprosis viruses. His investigations and outcomes have vastly improved scientists’ understanding of these economically damaging diseases and directly supported the health of the citrus industry.

Palm and Roy
### APHIS Administrator’s Awards

Each year, APHIS’ Administrator honors exceptional people in the agency whose efforts have transformed our work and fortified our safeguarding mission. This year, USDA Under Secretary Greg Ibach joined Administrator Vietnam to help celebrate the accomplishments of a number of APHIS employees, including those who served on the agency’s SARS Team and the Nebraska Flood Response Team.

#### Nebraska Flood Response

The Nebraska Flood Response Team brought eyes in the sky and boots on the ground to help meet the challenges of unprecedented flooding in Nebraska in 2019. The team conducted aerial surveillance to locate stranded livestock, damaged infrastructure, and potential hazards. They also managed the removal and disposal of animal carcasses from more than 400 wood crates in June 2018. The shipment was hydroelectricity equipment packed in approximately 400 wood crates. When PPQ confirmed the presence of live wood-boring pests in an imported shipment of hydroelectricity equipment packed in approximately 400 wood crates in June 2018, CBP issued an emergency action notification ordering the re-export of the infested shipments.

Although the importer filed temporary restraining orders with two Federal courts to keep the shipments in the United States, CBP, APHIS, and the U.S. Department of Justice prevented these activities, supporting our processes, decisions, and authorities. In the end, the court upheld CBP’s re-export order, and the importer received a significant financial penalty.

To fix this problem once and for all, Stulberg joined APHIS’ Senior Biologist, Paul Reiners, to help develop a process for giving certain scientists super-user access to test new scientific software applications, including open-source and commercial products, which were previously off limits. Stulberg also helped establish a program for giving certain scientists super-user access to test new scientific software products, helping to keep PPQ on the cutting edge.

### Deputy Administrator’s Awards

Each year, PPQ Deputy Administrator Osama El-Lissy recognizes the exemplary employees—employees, partners, and cooperators—who made significant contributions toward achieving PPQ’s mission of safeguarding American agriculture in the previous year. He also honors new outstanding employees whose work has helped to transform our agency.

#### 2018 Safeguarding Award

This year, PPQ Deputy Administrator Osama El-Lissy presented the Safeguarding Award to the Houston Interagency Emergency Response Team for their vigilance in protecting U.S. agriculture in 2018. This team, which included PPQ and U.S. Customs and Border Protection CBP employees, proved the strength of our safeguarding partnership.

Working together, the team conducted surveillance to locate stranded livestock, damaged infrastructure, and potential hazards. They also managed the removal and disposal of animal carcasses from more than 400 wood crates. PPQ and CBP’s Port and Emergency Programs Director Valerie Defeo participated in the agency team, providing invaluable emergency experience and leadership. Human health and safety and American agriculture all benefited from their efforts.

#### 2018 Outstanding Employee Award

Deputy Administrator El-Lissy presented the Outstanding Employee Award to Molecular Biologist Michael Stulberg. Stulberg helped to develop a system for giving certain scientists super-user access to test new scientific software, helping to keep PPQ on the cutting edge.

Stulberg’s work led to fundamental changes within APHIS, including a comprehensive list of critically important scientific software. Now, APHIS employees have access to hundreds of scientific software applications, including open-source and commercial products, which were previously off limits. Stulberg also helped establish a program for giving certain scientists super-user access to test new scientific software products, helping to keep PPQ on the cutting edge.

Stulberg’s work led to fundamental changes within APHIS, and advanced how scientists can perform their work within the agency’s IT framework. He provided essential contributions to the achievement of PPQ’s mission. And he did it all as a mid-level duty while performing an important regular weekly task, which included conducting an above-average number of confirmatory tests for regulated or quarantine pests.
ensuring additional safeguarding.

From all countries are accompanied by a phytosanitary certificate with an additional industry declaration

Based on information the team collected, APHIS published a Federal Order for quarantine pospiviroid pathogens in imported tomato seeds. The large cross-functional project included staff from Field Operations, ports of entry, plant inspection stations, Science and Technology, Policy Management, and CBP. This exceptional collaboration underpinned the project’s success and serves as a template for future seed testing initiatives. Based on information and CBP, this exceptional collaboration underpinned the project’s success and serves as a template for future seed testing initiatives. Based on information...
PPQ Employees Earn Awards for Reaching Major Safeguarding Milestones

In April, Deputy Administrator Osama El-Lissy traveled to Florida to celebrate two significant safeguarding milestones: the grand opening of a new sterile insect rearing facility in Sarasota and processing 1 billion plant units in a single year at the Miami Plant Inspection Station.

Sarasota Sterile Insect Release Facility

Deputy Administrator El-Lissy praised Abbie Fox, PPQ’s Fruit Fly Exclusion and Detection Program Director (right, center), for overseeing one of the most successful plant protection programs in the Nation. Wild Mediterranean fruit flies have been detected only twice in the State since 1998. That is an incredible statistic given the volume of domestic and international trade and tourism that comes through Florida. It is also a testament to the quality of the Preventive Release Program and the fruit fly trappers in Florida—both of which Fox has directed since 2012. He also recognized John Renshaw (right, bottom) for his expertise, guidance, and tireless efforts in overseeing the design and construction of Florida’s new Sterile Insect Release Facility. Throughout the planning, design, and construction of this facility, Renshaw was the voice of knowledge, wisdom, and guidance that carried it forward. His unmatched level of technical knowledge and leadership has ensured that almost 100 million irradiated flies are continuously ready to be released each week.

Miami Plant Inspection Station

Deputy Administrator El-Lissy praised the Miami Plant Inspection Station’s entire staff (below) for their work processing 1 billion plant units in a single year—an achievement that underscores the staff’s deep commitment to safeguarding America’s agricultural and natural resources. In addition, the Miami-Dade County Office of the Mayor and the Board of County Commissioners presented a proclamation to the staff declaring Thursday, April 18, 2019, as the “USDA Miami Plant Inspection Station Day.”
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