DEFENDING AMERICAN AGRICULTURE AGAINST FOREIGN PESTS AND DISEASES

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON
BIOTECHNOLOGY, HORTICULTURE, AND RESEARCH

AND THE

SUBCOMMITTEE ON
LIVESTOCK AND FOREIGN AGRICULTURE

OF THE

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HOUSE OF REPRESENTATIVES

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DEFENDING AMERICAN AGRICULTURE AGAINST FOREIGN PESTS AND DISEASES

TUESDAY, MARCH 15, 2016

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON BIOTECHNOLOGY, HORTICULTURE, AND RESEARCH,
joint with the
SUBCOMMITTEE ON LIVESTOCK AND FOREIGN AGRICULTURE,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittees met, pursuant to call, at 10:02 a.m., in Room 1300 of the Longworth House Office Building, Hon. Rodney Davis [Chairman of the Subcommittee on Biotechnology, Horticulture, and Research] presiding.

Members present: Representatives Davis, Austin Scott of Georgia, Gibson, Denham, Yoho, Newhouse, Moolenaar, Rouzer (Chairman, Livestock and Foreign Agriculture Subcommittee), Hartzler, Kelly, Conaway (*ex officio*), DelBene, McGovern, Graham, Costa, Plaskett, Vela, Nolan, and Bustos.

Staff present: John Goldberg, Mary Nowak, Patricia Straughn, Stephanie Addison, Keith Jones, Mary Knigge, Nicole Scott, and Carly Reedholm.

OPENING STATEMENT OF HON. RODNEY DAVIS, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

Mr. DAVIS. This joint hearing of the Subcommittee on Biotechnology, Horticulture, and Research, and the Subcommittee on Livestock and Foreign Agriculture, regarding defending American Agriculture against foreign pests and diseases, will come to order.

Thank you all for being here today. I would like to begin our opening statements, and wish each of you a good morning. I had the chance to meet you before the hearing, so thank you again for being here.

I am pleased to be here alongside my good friend and fellow Chairman, David Rouzer, the Chairman of the Subcommittee on Livestock and Foreign Agriculture, and I would like to thank him for this joint hearing in which we are going to highlight efforts to defend American agriculture against the introduction of foreign pests and diseases.

This hearing is the third in a series of hearings through which the Committee has been examining the significance of agriculture to our nation's security.

As Chairman of the Subcommittee on Biotechnology, Horticulture, and Research, it has been my honor to host hearings focus-

ing on the extraordinary efforts of industry and academia that have led to the development, production, and marketing of an array of safe, wholesome, and affordable food. We have been blessed in this country with abundance, though we recognize that food insecurity is still a very real problem around the world and even within our own communities.

My colleagues and I understand the continuing need for Federal policies that promote and facilitate global food security for the benefit of our own national security. A significant component of ensuring food security is the capability to defend agricultural enterprises against the persistent threat of pest and disease introductions. Whether pests and diseases are introduced intentionally or unintentionally, we need to have the systems in place to detect and respond rapidly so that we can effectively control and eradicate these threats.

Through the Agricultural Quarantine Inspection Program, jointly operated by the USDA and DHS, we have the capacity for inspection, detection, and rapid response to pest and disease threats.

Today, we will be examining this program and how our continued investment in such functions is critical to protecting animal and plant health. It is our hope that our colleagues outside this Committee understand the real threats we face, and why it is so important that we continue to strengthen our investment in our critical agricultural infrastructure.

[The prepared statement of Mr. Davis follows:]

PREPARED STATEMENT OF HON. RODNEY DAVIS, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

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This hearing is the third in a series of hearings through which the Committee has been examining the significance of agriculture to our nation's security.

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It is our hope that our colleagues outside this Committee understand the real threats we face and why it is so important that we continue to strengthen our investment in our critical agricultural infrastructure.

It is now my pleasure to yield to my Subcommittee Ranking Member, Ms. DelBene.

Mr. DAVIS. It is now my pleasure to yield to the Ranking Member of the Biotechnology, Horticulture, and Research Subcommittee, my good friend and colleague, Ms. DelBene.

OPENING STATEMENT OF HON. SUZAN K. DELBENE, A REPRESENTATIVE IN CONGRESS FROM WASHINGTON

Ms. DELBENE. Thank you, Mr. Chairman. And I want to thank both our Chairmen, Mr. Davis and Mr. Rouzer, for holding this joint hearing, and to all of our witnesses for being here with us today.

Since the 1980s, the international trade of fruit and vegetables, or specialty crops, has been characterized by tremendous growth, driven by rising incomes and the expansion of the middle class worldwide. In the U.S., consumers are motivated to pursue an even healthier diet, and have pushed U.S. imports of fresh fruits and vegetables into remarkable rates of growth.

Here are some examples: In Fiscal Year 2015, the USDA forecast that fresh fruit imports would reach $10.3 billion, 8.9 percent higher than 2014, and 23 percent above Fiscal Year 2013. And fresh vegetable imports were forecast at $7.1 billion in, seven percent above Fiscal Year 2014, and eight percent above Fiscal Year 2013.

So while the local food movement continues to grow domestically, the fresh fruit and vegetable industry is rapidly globalizing.

There is, however, a simple but potentially devastating problem in the increased demand for fresh fruits and vegetables. As globalization and imports increase, so do the risks to domestic producers from foreign pests. And one thing I have consistently heard from growers in my district is that it is vastly easier to lose business from overseas markets when it is perceived that the integrity of a product is compromised. That it is easier to lose that business than it is to gain new business.

So, of course, most people don't think of agriculture in terms of national security, but they should.

The consequences to our economy and even our health can be compromised greatly when a new pest or disease is introduced into the ecosystem. However, through research and cooperation amongst agencies, we can be prepared to meet the challenges to come, safeguarding our economy and supporting our local fruit and vegetable growers in the process.

So thank you again to everyone for being here today.

And with that, I yield back.

Mr. DAVIS. Thank you, Ranking Member DelBene.

This is a first for me to be able to co-chair a hearing with my good friend, who is usually sitting directly in front of me and hiding me from the witnesses. So to be side-by-side with Mr. Rouzer, I now know that his head doesn't look nearly as big as it does when it is in front of me.

So I would like to yield to the Chairman of the Livestock and Foreign Agriculture Subcommittee, Mr. Rouzer.

OPENING STATEMENT OF HON. DAVID ROUZER, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

Mr. ROUZER. Thank you. Well, I guess thank you, Mr. Chairman. This is so I can keep a better eye on you, by the way. But thank you, nonetheless.

As Chairman Davis mentioned, and others, this hearing is the third in a series of hearings highlighting the crucial intersection of agriculture and our national security. In our first hearing last November, the full Agriculture Committee heard from Ambassador John Negroponte and Dr. Tammy Beckam, Dean of the Kansas State University College of Veterinary Medicine, in broad testimony concerning the various threats to agricultural security, as well as the economic significance associated with such threats.

In that first hearing, the Committee's focus was on how threats to global food security create instability among populations, and how this instability leads to violence and upheaval that ultimately threatens our own national security.

This past month, I hosted the second hearing of this series where we discussed with representatives of academia and the livestock industry, the incredible amount of work done by Federal and state agencies and the private-sector to defend against foot-and-mouth disease. We also discussed what work still needs to be done to expand our capabilities to deal with this disease should it ever be introduced into our herds.

Today, we are honored to be joined by representatives of USDA Animal and Plant Health Inspection Service, and the Department of Homeland Security's Customs and Border Protection Agriculture Program. Our objective is to take an in-depth look at Federal programs intended to defend against the introduction of diseases like foot-and-mouth disease, and what capabilities we have to prevent, control, and eradicate diseases should they be introduced.

Now, we face tremendous pest and disease pressures, which are being effectively managed by the hardworking men and women of USDA and DHS. Congress has a role to play in ensuring that the agencies have the tools they need to do this important work, so it is important that we hear from those charged with implementing these key programs.

I look forward to today's conversation.

[The prepared statement of Mr. Rouzer follows:]

PREPARED STATEMENT OF HON. DAVID ROUZER, A REPRESENTATIVE IN CONGRESS FROM NORTH CAROLINA

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As my colleague has mentioned, this hearing is the third in a series of hearings highlighting the crucial intersection of agriculture and our national security. In our first hearing last November, the full Agriculture Committee heard from Ambassador John Negroponte and Dr. Tammy Beckam, Dean of the Kansas State University College of Veterinary Medicine, in broad testimony concerning the various threats to agricultural security, as well as the economic significance associated with such threats.

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I look forward to today's conversation, and now yield to the Ranking Member of my Subcommittee, Mr. Costa for any remarks he wishes to make.

Mr. ROUZER. I now yield to the Ranking Member of my Subcommittee, Mr. Costa, for any remarks he wishes to make.

OPENING STATEMENT OF HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Mr. COSTA. Thank you very much, Chairmen, and the Ranking Member, and Members of both Subcommittees who are here this morning for a hearing that has a lot of importance for American agriculture throughout the country.

I am not so sure who is in charge of the lighting here, but it seems to me we could shed a little more light, besides the subject matter, I am not so sure why it is as dark as it is, but maybe staff could do something about that, Mr. Chairmen.

We are here to discuss the American preparedness to face the potential devastating impact that foreign pests and diseases have on American agriculture. That is helpful, thank you. That is shedding a little more light on things.

Ms. DELBENE. There you go.

Mr. COSTA. There you go. The witnesses that we have here today are from the Department's Animal and Plant Health Inspection Service, otherwise referred to as APHIS, and the United States Customs and Border Protection, which are very important. A group of us were down in Texas near the McAllen border and saw a lot of the good work that our Customs and Border Protection Service provide in terms of trying to monitor potential impacts of the migration of foreign pests and diseases that can impact our agricultural communities.

I have a number of questions, which will be referred to the witnesses: Do we have, first, adequate safeguards in place? Do your agencies have adequate funding? Are there as robust monitoring programs in place to ensure that pests and diseases that do get through initial screening, which sometimes happens, don't have the ability to spread? California, with over 300 commodities that we produce, we have had infestations that we have had to deal with repeatedly over the last 3 decades that I have been aware of as the former Chairman of the Senate Agriculture and Water Committee in California. This is not a new issue that we have had to contend with. And finally, even most recently in California again, we have the introduction of an additional citrus-related disease, and I would like to learn from the experts here what is their greatest fear as

to what comes next, potentially what we need to be on the lookout for.

I am especially excited to have the Agriculture Products Detection Canine Officer. I saw that canine when I walked in here. I don't know who is going to translate his or her testimony, but we are anxious to hear it. But truly, they play a role. We have an international operations in the Fresno Airport, where we have daily flights, and those canines do provide an important role in terms of monitoring and detection. So we appreciate that additional support.

Earlier this month, as I said, I had in my office California's Agriculture Commissioners and Sealers speaking on the importance of the detection teams play, not only in Fresno's air terminals, but also air terminals at other ports of entry throughout the country. And while there are 14 canine detection teams in California, I am told that oftentimes it is inadequate, and there is a lack of funding to support those 14 canine teams.

Finally, the continued success and growth of our nation's agricultural industry is dependent on a host of factors, including our ability to protect animals and plants from pests and diseases. So I want to applaud APHIS for your work in advance, and the Customs and Border Protection Service for working to deal with daily threats that occur across our borders, whether it happens unintentionally or not, people who are just traveling back and forth sometimes bring fruits and vegetables from friends, or things that they saw at the supermarket that they wanted to bring home, and don't know that they are bringing larva and other potential pests that can and do create infestations.

So thanks again, both Chairmen, for the two Subcommittees coming together and holding this hearing today. From a part of the country where we have had to deal with repeated infestations, from Medflies to fruit flies, to all sorts of other infestations, this is, I can tell you, an important hearing to protect American agriculture. So I look forward to the testimony.

Thank you.

Mr. DAVIS. Thank you to Mr. Costa.

And we are proud to be joined today by the Chairman of the full House Agriculture Committee, who I would like to now recognize to give any statement he wishes.

OPENING STATEMENT OF HON. K. MICHAEL CONAWAY, A REPRESENTATIVE IN CONGRESS FROM TEXAS

Mr. CONAWAY. Well, thank you, Mr. Chairman, Chairman, Ranking Member, Ranking Member. I appreciate the witnesses being here today.

Americans enjoy the most affordable, most abundant, and the safest food and fiber supply of any developed nation in the world. They enjoy it in their pocketbooks, but they don't know why it happens. And the safest part of it is what you will hear from the witnesses today. I am excited about understanding the work that you do and the importance of protecting the safety of the food supply.

National security and agriculture are linked at the hip, at the shoulder, and elbow. You can't have one without the other. President Bush said that the nation that can feed itself is more secure

than a nation that can't. And so an integral part of that is the safety of the food, not only what is grown in the United States, but what is grown outside the United States and brought in. And the role that you and your agencies play in making sure that continues to be the safest in the world is important. I am looking forward to hearing from each of you.

And with that, Mr. Chairman, Chairman, Ranking Member, Ranking Member, I yield back. Thank you.

Mr. DAVIS. Thank you, Mr. Chairman, Chairman, Chairman.

The chair would request that other Members submit their opening statements for the record so the witnesses may begin their testimony, and to ensure that there is ample time for questions.

The chair would like to remind Members that they will be recognized for questioning in order of seniority for Members who were present at the start of the hearing. After that, Members will be recognized in order of their arrival. I appreciate Members' understanding.

Witnesses are reminded to limit their oral presentations to 5 minutes. All written statements will be included in the record. Over the course of today's hearing, following the testimony of the witnesses, everyone at the table will be able and will be available to answer any questions.

And now I would like to again welcome our witnesses to the table.

I would like to introduce Mr. Kevin Shea, the Administrator of the USDA, Animal and Plant Health Inspection Service, right here in Washington, D.C., and to give his opening statements. And I know he is accompanied today by Mr. Osama El-Lissy, Deputy Administrator, APHIS Plant Protection and Quarantine, and Dr. Jack Shere, Acting Chief Veterinarian Officer and Deputy Administrator, APHIS Veterinary Service.

So, Mr. Shea, please go ahead.

STATEMENT OF KEVIN SHEA, ADMINISTRATOR, ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.; ACCOMPANIED BY OSAMA EL-LISSY, DEPUTY ADMINISTRATOR, PLANT PROTECTION AND QUARANTINE, APHIS, USDA; JACK SHERE, D.V.M., PH.D., ACTING CHIEF VETERINARY OFFICER AND DEPUTY ADMINISTRATOR, VETERINARY SERVICES, APHIS, USDA

Mr. SHEA. Thank you, Mr. Chairman, Congresswoman DelBene, Congressman Costa, Chairman Conaway, and all Members. I appreciate this opportunity, and I very much appreciate that you are bringing light on this important issue for all Americans.

Safeguarding against significant plant and animal pests and diseases is vital to protecting industry, producers, and consumers, and ensuring that we have a safe and secure food supply. It is a top priority for all of USDA. It is the top priority for us in APHIS. Simply put, it is why we exist, and the reason over 8,000 employees in APHIS go to work every day.

The impact of pests and diseases on the U.S. economy can be staggering. For example, the outbreak of highly pathogenic avian influenza last year, which was the largest foreign animal disease

outbreak in American history, cost taxpayers nearly $1 billion, just in response, cleanup, and indemnity costs. And that doesn't include lost export markets or temporary shortages, or price increases for poultry and eggs.

Our approach to safeguarding really runs along continuum, from overseas to every American farm and ranch, and every means of distribution. Our first goal always is to keep pests and diseases out of the country, and we think we have done a good job in that regard. But we can't guarantee those efforts will always succeed, so we have to be able to quickly detect any pests and diseases that do arrive, and quickly and efficiently control and eradicate those threats.

While increased trade has helped American agriculture prosper, and provided more abundant food and products for all Americans, the sheer volume of traffic inevitably means that pests and diseases have more opportunities to hitch a ride, whether inadvertently or deliberately.

Overseas, we work to exclude pests at their point of origin, long before shipments even reach our borders. We have APHIS employees stationed in more than 30 countries. They collect and analyze data on foreign pests and diseases to help us make better policy decisions here, such as where risk assessment should focus, and how we should modify our port of entry inspections. Our scientists conduct risk assessments that enable us to make informed decisions about the potential costs or risk of any pests or diseases that could come to the United States with any specific commodities. We only allow imports when we are convinced it is safe to do so.

At ports of entry, we work with our CBP colleagues to inspect arriving passengers and cargo to find any pests or diseases or their host. We provide CBP direction on which pests and diseases to look for, and we advise them on pathways that pose the highest risk. Also, we train CBP agricultural inspector specialists on how to enforce our regulations.

APHIS directly operates plant inspection stations for nursery stock and propagative plant materials. And we also inspect animals who cross the borders from Canada and Mexico. Domestically, we conduct surveillance to quickly detect any foreign pests and diseases that may have evaded our other safeguarding measures. Early pest detection is crucial to averting major damage.

Last year alone, we conducted surveys for 118 high-risk plant pests, along with routine surveillance for foreign emerging and endemic diseases. Our laboratories develop, validate, and conduct diagnostic testing for plant and animal pathogens, and we have expanded capacity through our state partners and university partners in the National Plant Diagnostic Network and the National Animal Health Laboratory Network.

Should a pest or disease arrive in this country, APHIS and our state, industry, and other Federal partners, work quickly to respond, as we did to high-path avian influenza last year. And I would add that 2015 was also a challenging year on the plant health and specialty crop side. We found more exotic fruit flies than we have in 20 years, with 12 outbreaks in California, Florida, Puerto Rico, and Texas. But the good news is that we did rapidly detect them, responded, and contained them. We have already

eradicated ten of those, and another pest that we are on the verge of eradication is the European grapevine moth in California.

I would like to mention two last things. First, this Committee has recognized in the last two farm bills the grave threat that plant pests and diseases pose to the safety and security of our food supply, and put in place the Plant Pest and Disease Management and Disaster Prevention Program, better known by its section number 10007, and that has greatly expanded our ability to detect, exclude, and respond to pest diseases.

Over the last 3 years, we have funded over 2,600 projects.

Last, I want to mention that one of the other major lessons we learned last year in the avian influenza outbreak is that our veterinary and animal health infrastructure had declined to the point we were not able to respond as quickly or as well as we would have needed to. I think we did a good job given what we had, but we know now we need to have more resources in animal health. And indeed, in our budget that is before the Appropriations Committee now, we have requested nearly a $30 million increase, to put in place 80 more veterinarians and animal health technicians around the country for quick response.

In conclusion, I want to assure you that APHIS understands that safeguarding against foreign plant and animal pests and diseases is our top priority, and we will continue to take that mission very, very seriously. After all, it is, indeed, the foundation of feeding and clothing America, and really the world, to have health agriculture.

Thank you very much.

[The prepared statement of Mr. Shea follows:]

PREPARED STATEMENT OF KEVIN SHEA, ADMINISTRATOR, ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D.C.

Chairmen Davis and Rouzer, Ranking Members DelBene and Costa, and Members of the Committee, I appreciate the opportunity to appear before you today to discuss the importance of ensuring that the United States is prepared to prevent, detect, and respond to threats to plant and animal health. I have with me today our Deputy Administrator for Plant Protection and Quarantine Mr. Osama El-Lissy and our Acting Deputy Administrator for Veterinary Services Dr. Jack Shere.

As you well know, safeguarding against significant plant and animal pests and diseases—ranging from the European grapevine moth to foot and mouth disease—is vital to protecting industry, producers, and consumers, and ensuring that we have a safe and secure food supply. It remains a top priority for the U.S. Department of Agriculture (USDA), and is something we at the Animal and Plant Health Inspection Service (APHIS) are committed to every day.

The impact of pests and diseases on the U.S. economy can be staggering. The outbreak of highly pathogenic avian influenza (HPAI) last year—which was the largest animal disease outbreak in U.S. history—cost U.S. taxpayers nearly $1 billion just in response, clean up, and indemnity costs. That didn't include lost export markets, temporary shortages, or price increases for certain poultry and their products. The Mediterranean fruit fly—known as the most destructive agricultural pest in the world—infests more than 300 varieties of fruits, vegetables, and nuts, including apple, bell pepper, grape, lemon, orange, peach, tomato and walnut. The gross value of just those eight commodities in California alone is more than $14 billion a year (USDA NASS, 2014).

Pests and diseases can limit our ability to produce healthy and abundant crops and can shut off foreign markets for U.S. producers. They also highlight the importance of our "One Health" approach to coordinating efforts across the government to protect human and animal health. According to the Centers for Disease Control and Prevention (CDC), about 75 percent of recently emerging infectious diseases affecting humans originate in animals. And approximately 60 percent of all human pathogens are zoonotic. The work that APHIS and its partners undertake to protect U.S. agricultural health provides benefits far beyond the fields and farms.

Threats to U.S. agricultural health can come from a number of places—hitchhiking pests imported on cargo or ships, a traveler bringing food from his or her homeland, a sick animal or pet being brought from overseas, or even nefarious attempts at agro-terrorism. Regardless of the intent, APHIS' focus is on putting in place preventive measures to keep pests and diseases out of the country, preparing for these threats, detecting them, and taking emergency action if necessary.

APHIS has a wide breadth of expertise and over 40 years of experience in protecting U.S. agriculture from plant and animal pests and diseases. From our cadre of veterinarians to our plant pathologists, wildlife biologists, entomologists, epidemiologists, and microbiologists, we have a strong scientific infrastructure that informs our decision making and actions. The relationships we have built with our partners in this effort also serve to strengthen our protections against pests and diseases. We work closely with State Departments of Agriculture and Natural Resources, local governments, stakeholder groups, and Federal agencies including U.S. Customs and Border Protection (CBP).

To protect America's agriculture and environment, APHIS and its partners maintain a comprehensive system of overlapping safeguards that operate overseas, at U.S. ports of entry, and within the United States to prevent foreign plant and animal pests and diseases from gaining a foothold in our country. Today, I will give you an overview of our efforts in each of these areas, as well as discuss some of our initiatives that further support these activities.

Overseas and Risk Mitigation Activities

APHIS' work to safeguard the health and value of American agriculture begins by preventing harmful pests and diseases from entering the United States. This work starts overseas, in some cases in the field or on the farm. Our Plant Protection and Quarantine (PPQ), Veterinary Services (VS), and International Services (IS) programs work with foreign governments, agricultural producers, and shippers to produce healthier crops, exclude pests at their origin, and treat at-risk commodities in the country of origin or on the high seas before shipments get near our shores.

APHIS, with employees stationed in more than 30 countries, collects and analyzes data on foreign pests and diseases from around the world to detect potential trade pathways for accidentally transporting foreign invasive pests. This information helps us make better policy decisions, such as where risk assessments should focus, when to modify port of entry inspections, and what pests we should be surveying for at home.

Our work to help our foreign counterparts build their own infrastructures and capacity to respond to emerging pest and disease conditions is another essential component of our safeguarding activities. Through our capacity building programs, we train plant and animal health officials from other countries in developing effective systems to identify and control pests and diseases locally.

We also work closely with multilateral organizations throughout the world to promote effective disease surveillance overseas and gain access to information on agriculture health issues worldwide. These include international and regional groups such as the International Plant Protection Convention, the North American Plant Protection Organization, the World Animal Health Organization, the International Seed Testing Association, and the *Codex Alimentarius* Commission.

Combined with our overseas efforts, APHIS' import regulations work to mitigate the risk posed by agricultural products long before they reach U.S. ports of entry. Before we will allow imports of a specific product from a specific region of the world, our scientists conduct a risk assessment that enables us to make informed decisions about the potential pest or disease risks associated with that specific commodity. Based on these assessments, APHIS will only allow imports if they can occur in a safe manner.

APHIS also maintains strict, science-based import regulations for foreign agricultural products. We require import permits for a variety of imported agricultural commodities. As appropriate based on pest and/or disease risk, we also require imports to be accompanied by official sanitary or phytosanitary certification indicating that any associated risk has been sufficiently mitigated. APHIS requires that certain approved plant products, such as bulbs from Holland, undergo and pass preclearance inspection in the country of origin before being shipped to the United States. USDA may also require that commodities undergo treatment—such as fumigation or dipping for cattle fever ticks—and/or mandatory quarantine prior to being allowed entry into the United States. As you can see, USDA's overseas and risk reduction activities play a critical role in helping to mitigate foreign pest and disease risks in the country of origin rather than in the United States.

At Ports of Entry

Through its Agricultural Quarantine Inspection (AQI) program, APHIS works in tandem with CBP to address the risk of foreign pests and diseases entering the country at ports of entry, either through the movement of people or commodities. Under the Homeland Security Act of 2002, USDA maintained responsibility for establishing the regulations, policies, and procedures that govern the import of agricultural products, and CBP became responsible for conducting the actual inspections at ports. APHIS directs CBP on what pests and diseases to look for and which pathways pose the highest risk, shares information on new and emerging pests and diseases, and trains CBP agricultural specialists in how to enforce our agricultural import regulations. CBP inspections target the highest-risk cargo, as well as travelers most likely to be carrying agricultural products. APHIS provides insect identification services to assist CBP officials in distinguishing common pests from pests of concern, and monitors the application of treatments that at-risk shipments must undergo at ports of entry before being allowed to enter American markets. We also station veterinarians at ports of entry to provide guidance on inspecting animal products to allow for safe entry.

Importations of nursery stock and other propagative plant materials can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through one of its plant inspection stations, which are located at ports-of-entry throughout the country at major international airports and seaports, and at major crossings along the U.S.-Mexican border. APHIS specialists at these stations inspect shipments to ensure that imported plants and seeds do not contain pests and diseases of regulatory significance. In FY 2015, our inspectors cleared more than 19,000 imported shipments containing 1.5 billion plant units and over 700,000 kilograms of seeds. Through these inspections, they intercepted more than 800 reportable pests. In addition, the stations conducted more than 500 treatments remediating pests on more than 4.2 million plant units and more than 350,000 kilograms of seed.

On the animal side of things, APHIS operates Animal Import Centers for importations of animals and animal-derived materials to ensure that exotic animal diseases are not introduced into the United States. Animals that are susceptible to or are capable of carrying diseases or pests that could seriously endanger U.S. domestic livestock or poultry must be imported through a U.S. animal import center and are inspected, tested, and quarantined depending on the species and origin. APHIS also has border inspection facilities along the southern and northern U.S. borders for inspecting cattle and other livestock transiting from Mexico and Canada.

Inside the United States

Expanding international trade is good for our farmers, our consumers, our economy, and the world. However, the increasing movement of people and goods means that foreign pest and disease introductions are a very real threat. Outbreaks can halt the movement of agricultural products, having serious economic impacts on farmers, growers, and exporters, and in the case of zoonotic disease, may affect humans.

To counter this threat, APHIS' efforts to safeguard America's agriculture and environment continue inside the United States, so that we can quickly detect any foreign plant and animal pests and diseases that may have evaded our other safeguarding measures. Critical to this effort is the surveillance we and our state partners conduct throughout the country. Early pest detection is important to avert economic and environmental damage; once a pest or disease becomes established or spreads significantly, the mitigation costs can reach millions of dollars. This is in addition to lost farm revenues, damage to ecosystems, and loss of foreign markets.

Our PPQ program, along with state cooperators, carries out plant pest surveys through the Cooperative Agricultural Pest Survey (CAPS) Program. CAPS targets high-risk hosts and commodities, gathers data about pests specific to a commodity, and provides accurate assessments of pest distribution, including pest-free areas for use in support of U.S. exports. In FY 2015, APHIS and cooperators conducted CAPS 259 surveys in 50 states and three territories. The program targeted 118 high-risk pests of national concern for survey in corn, small grains, soybean, nursery crops and other commodities, as well as exotic wood boring bark beetles and cyst nematodes, along with an additional 130 pests of state concern.

VS conducts routine surveillance for foreign, emerging, and endemic animal diseases, including bovine tuberculosis, foot-and-mouth disease, avian influenza, and scrapie, as well as for disease vectors such as the cattle fever tick. This surveillance is done through a number of surveillance streams, including testing at slaughter facilities, livestock markets, shows, sales, buying stations, on-farm, and at rendering

facilities. As an example, in FY 2015, VS tested over two million cattle for brucellosis, over 40,000 sheep and goats for scrapie, and over 190,000 swine for Pseudorabies.

Consistent with our One Health approach to animal diseases, our Wildlife Services (WS) program also monitors wildlife for diseases that could potentially spread to livestock or impact humans. Their longstanding efforts monitoring for highly pathogenic avian influenza (HPAI) in wild birds were highlighted during the disease outbreak in poultry farms last year. Since last July, they have sampled over 43,000 wild birds in an enhanced surveillance effort, which can serve as an early warning system for HPAI in commercial poultry. Another important effort they undertake is disease testing of feral swine that they remove through the National Feral Swine Damage Management Program. In FY 2015, WS tested over 2,800 feral swine samples for five diseases of national concern, finding, for example, that 18% were positive for Pseudorabies, a disease that APHIS and U.S. industry eradicated from the domestic swine population in 2004.

Laboratory and diagnostic services are essential components of the U.S. plant and animal health surveillance infrastructure. On the plant side, APHIS relies on its Center for Plant Health Science and Technology (CPHST), which develops, validates, and conducts diagnostic testing for plant pathogens, develops digital pest identification tools, and supports our pest management and eradication efforts. Our National Veterinary Services Laboratories (NVSL) serves as the only national reference and confirmatory laboratory for APHIS animal health programs, and participated in over 1,000 foreign animal disease investigations last year. To expand our capacity to detect and diagnose pests and diseases and ramp up during emergency situations, we also support the National Plant Diagnostic Network (NPDN) of 55 labs and the National Animal Health Laboratory Network (NAHLN) of 62 laboratories.

We also recognize the risk posed by smuggled or improperly imported agricultural products and address this vulnerability through our smuggling interdiction and trade compliance (SITC) program. Our SITC program is responsible for intelligence gathering and other anti-smuggling activities, such as secondary market and warehouse inspections, that help prevent animal and plant pests and diseases from entering the United States. When SITC personnel identify smuggled product, they not only remove it from the market but also conduct a full investigation to identify and eliminate any illegal pathways. SITC also conducts market surveys and trend analysis and uses various intelligence tools and data systems to track products that have entered through our borders. In FY 2015, APHIS seized over 230,000 pounds of prohibited and/or restricted plants and plant products and meat and meat products and an additional 65,000 pounds of recalled product.

Emergency Response

In conjunction with our prevention and surveillance efforts, we acknowledge the absolute necessity of being able to respond swiftly and in a coordinated manner should a serious pest or disease be detected. APHIS has the authority and the ability to respond quickly and effectively to the identification of new pests and diseases. In addition, APHIS has specific emergency response guidelines for many of the pests and diseases that pose a significant threat to the United States. We've developed these response plans in conjunction with our Federal, state, and local partners, with whom we conduct exercises to test our preparedness. To ensure maximum speed and effectiveness, we have rapid response teams stationed around the country ready to travel to detection sites to coordinate Federal containment and eradication efforts. In such situations, our goal is to minimize impacts to U.S. producers and disruptions to trade.

We have in place an incident command approach to emergency response. Incident command places teams of emergency personnel and managers directly in the field to coordinate response efforts. By virtue of their placement and size, the teams and their commanders have a high level of autonomy, are able to respond quickly to new or evolving situations, and can provide extremely timely information to decision makers. In addition, teams from various local, state, and Federal agencies all speak the same language when working an emergency and can tap into a wider network of resources. We saw this in January, when APHIS was able to quickly deploy an incident management team to Indiana at the first sign of disease, enabling the agency and the state to swiftly eradicate an outbreak of HPAI.

In the event of an outbreak, the Secretary of Agriculture has emergency transfer authority under the Animal Health Protection Act and Plant Protection Act to obtain funding to combat a pest or disease, just as he did with the outbreak of HPAI last year. This can include funding for indemnity, to allow APHIS to compensate a producer if we must destroy his plants or animals as part of our response.

Responding to HPAI in 2015 put to test all of our emergency preparedness and response infrastructure and plans. While we were successful in eradicating the disease, we learned a lot and continue to reflect on the lessons learned and take steps to improve our response. Further, of the more than 1,000 foreign animal disease investigations that we participated in last year, the vast majority turned out to be minor illness. This shows the vigilance, both within APHIS and with our partners in the states and industry, to quickly respond when there may be a potential threat to U.S. livestock health.

[CY] 2015 was a very challenging year on the plant health side as well. We found more exotic fruit flies than we have in the past 20 years, and we had 12 fruit fly outbreaks in California, Florida, Puerto Rico, and Texas, compared to four the year before. Thirteen other new significant pest and pathogen species were detected through our pest surveys or other reports, including Old world bollworm in Florida, which attacks crops valued annually in the United States at approximately $78 billion (Kriticos, *et al.,* 2015). Old world bollworm can affect 180 species of wild and cultivated hosts including rice, sugarcane, tomatoes, potatoes, cotton, and beans. Despite the challenges to our plant health safeguarding system in 2015, the good news is that we are demonstrating through our cooperative efforts that we can rapidly detect, contain, and eradicate these pests. For example, we have already eradicated ten of the fruit fly outbreaks from 2015. We also anticipate being able to declare eradication of European grapevine moth in late 2016. Through the combined actions of APHIS' domestic fruit fly and pest surveillance and response programs, we are working to ensure that new and exotic plant pests do not establish in the United States, thereby protecting U.S. agriculture and the environment while keeping our export markets open.

Expanding Our Ability To Protect the United States

Safeguarding U.S. agriculture and ensuring that we are prepared for any sanitary or phytosanitary threats against it is a huge undertaking, but it is one that we and our partners in the Federal, state, and local governments, industry, and stakeholders are fully committed to. I'd like to mention two other initiatives aimed at expanding our ability to be successful.

In the 2008 Farm Bill, and again in the 2014 Farm Bill, Congress recognized the great role that pests and diseases of plants play in the safety and security of our food supply, and in making our U.S. agricultural economy and local communities prosperous. This Committee, along with your counterpart in the Senate, created the Plant Pest and Disease Management and Disaster Prevention program, which has proven quite a success in extending our ability to protect, detect, and respond to plant pests and diseases. Through this program, APHIS has funded more than 2,600 projects in 50 states and two U.S. territories since 2009, allowing cooperators across the country to put innovative ideas into action with farm bill funds. Projects have included enhanced molecular diagnostics for pests such as fruit flies. We have been able to extend the reach of our traditional CAPS surveillance each year, with an additional 80 taxon and commodity surveys supported in FY 2015. The farm bill also funds New Pest Response Guidelines, which serve to jumpstart preparation of site- or situation-specific action plans for high consequence plant pests and diseases so we can be prepared should they invade the United States. Other projects target domestic inspection activities such as detector dogs that can identify pests in mail facilities, as well as mitigations to help eradicate or contain pests. This program has been a true success, helping APHIS, the states, and stakeholders further protect U.S. agriculture.

Second, I would like to mention our proposal in the FY 2017 President's budget request to bolster our animal health readiness capacity. One of the biggest lessons we learned in responding to last year's HPAI outbreak was that we could build on the Agency's existing capacity to effectively address large animal health events. Unfortunately, our current funding level for animal health activities is below levels that were available to us 10 years ago, and APHIS has seen a reduction of more than 200 animal health professionals in that time. The need to rebuild our capacity is critical, and we have requested an additional $30 million to address this need. If provided by Congress, we will use most of the funds to hire veterinarians and animal health technicians to rebuild our field force and strengthen our ability to respond to animal health emergencies.

In conclusion, APHIS' core mission is to protect the health of U.S. agriculture and we have a myriad of other programs and initiatives, all aimed at this vital cause. While I haven't mentioned every one of them today, I hope I have provided a broad overview of our goals and efforts in this area. I assure you that my agency, and USDA, are committed to doing all we can to protect U.S. plant, animal, and human

health from the threats posed by pests and diseases. I'd be happy to answer any questions.

Mr. DAVIS. Thank you, Administrator Shea.

Now we are proud to be joined today by Mr. Kevin Harriger, the Executive Director of Agriculture Programs and Trade Liaison in the Office of Field Operations, with the U.S. Customs and Border Protection here in Washington, D.C. And Mr. Harriger is accompanied by Ms. Kristi Currier, an Agriculture Specialist at the CBP, and also hiding under the desk, Agriculture Products Detection Canine Calan, who is in Dulles, Virginia, on regular occasion. I know you might be going over your 5 minutes, and I want to let you know, sir, that that is completely fine, because you are going to give us a little bit of a demonstration during your opening testimony. And I would like to welcome you to offer that testimony.

STATEMENT OF KEVIN HARRIGER, EXECUTIVE DIRECTOR, AGRICULTURE PROGRAMS AND TRADE LIAISON, OFFICE OF FIELD OPERATIONS, U.S. CUSTOMS AND BORDER PROTECTION, U.S. DEPARTMENT OF HOMELAND SECURITY, WASHINGTON, D.C.; ACCOMPANIED BY KRISTI CURRIER, AGRICULTURE SPECIALIST, CBP, DHS; CALAN, AGRICULTURE PRODUCTS DETECTION CANINE, CBP, DHS

Mr. HARRIGER. Good morning. Thank you, Chairman Davis, Chairman Rouzer, Chairman Conaway, Ranking Members DelBene and Costa, and distinguished Members of the Committees. Thank you for the opportunity to testify today on the role of U.S. Customs and Border Protection in protecting our nations' agricultural security.

When the Department of Homeland Security was created in 2003, and the agricultural quarantine inspection mission at our ports of entry transitioned from USDA's Animal and Plant Health Inspection Service to CBP, I transferred along with it. Throughout my 34 years of service with CBP and the USDA, leading agricultural compliance, inspection, pest exclusion, and eradication programs, I learned firsthand the challenges and risks associated with securing our nation from agricultural threats, while simultaneously facilitating lawful travel and trade that is so critical to our economy.

As the nation's unified border security agency, CBP continues to work closely with the USDA and other government and private-sector partners to protect the nation from a variety of diverse threats, including those posed by plant pests, biological agents, and foreign animal diseases arriving by air, land, and sea. Agricultural inspections have traditionally focused on the unintentional introduction of pests and diseases; those unnoticed and associated with someone's luggage, or hitchhiking on the floor of a container. With the added danger of agro-terrorism, that is, intentional introduction of pests, diseases, or biological agents, the role of the CBP's agriculture specialists at our ports of entry is more crucial than ever.

CBP's Agricultural Quarantine Inspection Programs are a key component of our border security mission. CBP's more than 2,400 highly trained CBP agriculture specialists, located at approximately 180 ports of entry, perform the complex function of determining the admissibility of agriculture commodities, and pre-

venting the introduction of harmful pests, diseases, and potential agro-terrorism into the United States. CBP's multi-layered agricultural security approach involves several key programs that increase CBP's awareness of what may be inside shipments or carried by travelers, and enhance our ability to assess whether it poses a risk to our natural resources.

I would like to highlight just a few of those efforts for you today.

First, many of the same analytical tools used in support of CBP's antiterrorism activities related to the movement of cargo and travelers are also used to target potentially harmful agricultural items that may be approaching our borders. To enhance agriculture targeting, CBP has developed the framework for a National Agriculture Cargo Targeting Unit that focuses solely on agricultural threats in all cargo pathways. This specialized unit creates a centralized national-level repository of agriculture intelligence, enabling efficient dissemination and information to local ports of entry for appropriate action.

Second, in addition to our targeting capabilities, CBP deploys a variety of specialized detection technologies and resources. CBP's agriculture detection canines, for example, are a key operational asset when screening passengers, cargo, and conveyances, to prevent the introduction of prohibited agricultural materials that can harbor harmful plant pests and foreign animal diseases.

And, Members, at this time, I would like to defer to CBP Agriculture Specialist Currier, and her trusty pal, to give a little demonstration on the efficiency and efficacy of our canine program.

Ms. CURRIER. Good morning. I am U.S. Customs and Border Protection Agriculture Specialist Canine Handler Currier, working out of Dulles. My current canine has been with me for a little over 3 years. I don't know if you are aware of it, but our canines learn their odors in context, so he can easily be off duty and be a regular dog at some times, but when he is on that baggage floor, he is concentrating on passengers and their luggage.

They start with five basic odors down in the training center, and throughout their life, we are continuing to add more odors to what is specific to the port that the dog is assigned to.

Calan handles about 60 different odors, but he also generalizes, and that is one of the ways he builds his repertoire is, when he smells something that is sort of like one of his targets, he will see if he can get a response out of me by him doing his response, which is a basic quiet sit, and then if he gets rewarded for it, he adds it to his list. Beagles love food, so they are highly motivated by our reward system.

Shall I?

Mr. HARRIGER. Please.

Ms. CURRIER. Okay.

[Canine Demonstration.]

Mr. DAVIS. Now, that was great. Let the record show the first hit on a contraband mango was with Chairman Conaway. So thank you both.

Did you have any more testimony, Mr. Harriger?

Mr. HARRIGER. Just one more, if I may, sir, for our closing.

The third prong that we have, besides our detection and targeting, are our partnerships with APHIS and our Doctors Hospital

of Stark partners, we form the basis to improve our information sharing, our targeting capabilities, and our ability to conduct special operations. Those partnerships also enhance our ability to conduct regulatory exams, interdict prohibited agricultural items, intercept plant pests, and perform compliance monitoring.

CBP's agriculture quarantine inspection is a very critical component of our nation's border security mission. Committee Members, in delivering this program, we and CBP will continue to enhance our targeting and our detection capabilities, and in coordination with our partners, advance CBP's agricultural security efforts to protect our homeland, our natural resources, and protect the U.S. economy.

In closing, Chairmen Davis and Rouzer, Ranking Members DelBene and Costa, and distinguished Members of the Committee, I really thank you for the opportunity to testify today. I look forward to answering your questions.

Thank you, sir.

[The prepared statement of Mr. Harriger follows:]

PREPARED STATEMENT OF KEVIN HARRIGER, EXECUTIVE DIRECTOR, AGRICULTURE PROGRAMS AND TRADE LIAISON, OFFICE OF FIELD OPERATIONS, U.S. CUSTOMS AND BORDER PROTECTION, U.S. DEPARTMENT OF HOMELAND SECURITY, WASHINGTON, D.C.

Chairmen Davis, Rouzer, Ranking Members DelBene, Costa, and distinguished Members of the Committee, it is an honor to appear before you today to discuss U.S. Customs and Border Protection's (CBP) role in agriculture security, a critical component of our national security that we preserve through collaboration with other Federal agencies and non-Federal stakeholders.

When the Department of Homeland Security (DHS) was created in 2003, agricultural quarantine and inspection (AQI) duties relative to agricultural import and entry functions transitioned from the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) to CBP. As the lead DHS agency for border security, CBP continues to work closely with USDA, the Food and Drug Administration (FDA), and other domestic and international partners to protect the nation from a variety of evolving dynamic threats, including those posed by plant pests, biological threats, select agents, and foreign animal diseases, arriving at our air, land, and sea ports of entry (POEs). The introduction of a plant pest or foreign animal disease poses a very serious threat to U.S. agriculture and our natural resources. Furthermore, the potential economic impact is massive; according to the USDA Wildlife Services: Economic and Ecological Impacts of Invasive Species, 2000, invasive species cause an estimated $136 billion in lost agriculture revenue annually.

Each year, CBP agriculture specialists intercept thousands of "actionable pests"—those identified through scientific risk assessment and study as being dangerous to the health and safety of U.S. agricultural resources. In Fiscal Year (FY) 2015, CBP agriculture specialists interdicted approximately 1.6 million prohibited plant materials, meat, and animal byproducts at POEs, while also intercepting more than 165,000 pests from entering the United States.

When the agriculture inspection mission transitioned to CBP from APHIS, I transferred along with it. Throughout my 34 years of service with CBP and USDA, leading agricultural compliance and inspection and pest exclusion and eradication programs, I learned first-hand the challenges and risks involved with securing our nation from agricultural threats, while facilitating lawful travel and trade that is so critical to our economy. Today, I serve as the Executive Director of CBP's Office of Field Operations, Agriculture Programs and Trade Liaison (APTL) Office. We are responsible for safeguarding and protecting American agriculture from the risks associated with the entry, establishment, or spread of plant pests and pathogens, noxious weeds, and foreign animal diseases. We also provide leadership, expertise, and innovation to defend the United States from the threats of bio- and agro-terrorism.

Agricultural inspections have traditionally focused on unintentional introduction of pests or diseases—those unnoticed in someone's luggage or hitchhiking on the floor of a container. With the added danger of agro-terrorism, that is, the intentional

introduction of agro/biological agents, toxins, and plant pests or animal diseases, the role of the CBP agriculture specialists at our POEs is more crucial than ever. CBP's AQI programs are a key component of our border security mission. These programs utilize a risk-based strategy and multi-layered security approach that incorporates sophisticated targeting, collaboration with our Federal partners, and advanced detection capabilities.

Frontline Agriculture Security

CBP's inspection and detection activities are conducted by a cadre of highly-trained CBP agriculture specialists (CBPAS). CBPAS use their science-based education, background, and expertise to apply a wide range of Federal, state, and local laws and agency regulations in the process of determining the admissibility of agriculture commodities while, at the same time, preventing the introduction of harmful pests, diseases, and potential agro-terrorism into the United States. CBPAS seize prohibited or infested agricultural items, which, if allowed to enter, could cause great harm to our nation's agricultural and natural resources. CBPAS also plan, conduct, and supervise remedial actions such as treating, disinfecting, and safeguarding prohibited or restricted agricultural commodities. Additionally, CBPAS provide scientific and technical expertise on pathways of entry with a focus on threat analysis, interdiction, and intelligence-driven targeting for preventing the entry of prohibited agricultural products and agents of agricultural and biological terrorisms into the United States through POEs.

Most CBPAS have a bachelor's or higher degree in the sciences, such as botany, entomology, plant pathology, agriculture, biology or a related field. Once on board, the current CBPAS Basic Academy curriculum is 51 days long, and consists of USDA quarantine regulations, a scientifically oriented curriculum for plant pest identification, as well as a CBP law enforcement oriented curriculum. This comprehensive training, provided by USDA and CBP, prepares our CBPAS to effectively conduct inspectional and regulatory activities for our AQI operations. Our CBPAS also receive up to 18 weeks of port-specific post academy training.

When agriculture operations transitioned to CBP in 2003, approximately 1,565 Plant Protection and Quarantine (PPQ) Officers from approximately 135 POEs came on board from the USDA. Today, CBP has deployed more than 2,400 CBP agriculture specialists at approximately 182 POEs. Additionally, CBPAS are present at specific Preclearance stations outside of the United States, effectively pushing our border security protective measures outward and mitigating foreign animal disease and plant pest risk to trade and travelers prior to entry into the United States. At ports where we do not have CBP agriculture specialists, CBP officers are cross-trained to detect agriculture items of interest.

Agriculture security threats exist nationwide, across all modes—air, land, and sea—and in both the trade and travel environments. In the trade environment, each year, CBP processes nearly 30 million cargo containers that arrive by ship, plane, truck, and train at our POEs across the country. CBPAS use automated systems to place holds on targeted shipments and conveyances and work with specialized x-ray machines that detect organic materials. They check containers and trucks for smuggled agricultural products or packaging materials, such as wooden pallets that might contain invasive species that could harm our agriculture and environment. In a similar capacity, at international mail and express consignment (ECO) facilities, CBPAS screen shipments for the presence of infested or prohibited agricultural materials.

In the travel environment—air, land, and sea—CBP processes more than 360 million passengers each year. We also inspect commercially imported products, as well as modes of transportation, such as aircraft, cargo ships, open railcars and trucks. This is because agriculture threats in the travel environment include prohibited plant and animal products and by-products that are either intentionally or unintentionally packed in a passenger's baggage or vehicle. CBP agriculture specialists enforce USDA regulations and conduct agriculture quarantine inspections related to those travelers and their accompanying baggage. Agricultural canines specifically trained to detect meat and plant materials are an additional invaluable screening asset for international passenger pathways.

Efforts To Secure America from Agriculture Threats

In both the travel and trade environments, and across all modes, CBP's multi-layered approach to agriculture security necessitates a comprehensive awareness of threats, substantial information sharing and coordination, and advanced detection capabilities. Our targeting activities, Federal partnerships, and advanced detection capabilities increase CBP's awareness of what may be inside shipments or carried by travelers and enhance our ability to assess whether it poses a risk to the Amer-

ican people. CBP uses pest alerts and foreign animal disease notifications from the Animal and Plant Health Inspection Service; agriculture quarantine inspection data; intelligence; and advanced information to identify high risk shipments to support agriculture port operations across all environments and conveyances.

Targeting Capabilities

Many of the same analysis tools used in support of CBP's anti-terrorism activities related to the movement of cargo and travelers are also used to target potentially harmful agricultural items that may be approaching our borders in a shipment or with an individual traveler. For example, analysts at the National Targeting Center (NTC) use the Automated Targeting System (ATS) to proactively analyze advance passenger and cargo information before departure from foreign ports. This critical decision support tool assists CBP officers and CBPAS in identifying shipments or travelers that warrant a more comprehensive screening or inspection upon arrival at a POE. Furthermore, at the CBP Commercial Targeting and Analysis Center (CTAC), CBP and our Federal partner agencies combine resources, leverage expertise and capabilities, and share information to identify potentially unsafe imported products, target potentially high-risk shipments, and reduce redundant inspection activities.[1]

To enhance agriculture targeting, CBP developed the framework for a National Agriculture Cargo Targeting Unit (NACTU) at the NTC. This new agriculture unit focuses solely on agriculture threats to identify potential and repeat violators that may import shipments with pests, prohibited products, contaminants, or smuggled products in all cargo pathways (rail, air, sea, land, ECO). NACTU serves as a conduit to house agriculture intelligence at a national level and enables dissemination of information to local ports. Flagging high-risk shipments in a time sensitive manner and comprehensive entity research enables the local ports to save time and facilitates trade by removing the focus from low risk and compliant agricultural items.

CBP's targeting capabilities and programs are critical aspects of CBP's ability to effectively and efficiently identify potentially high-risk shipments or travelers and intercept agricultural threats before they arrive at a POE.

Detection Capabilities

In addition to our targeting capabilities, CBP deploys a cadre of specialized technology, and other resources to screen passengers and cargo to prevent the introduction of harmful plant pests and foreign animal diseases in the United States.

CBP's agriculture canines are among our most effective assets within our AQI program, and we continue to expand this valuable resource. In 2003, when USDA transferred PPQ Officers to CBP, approximately 74 canine teams were included. Today, about 118 CBP agriculture canine teams provide screening at the border crossings, Preclearance locations, air passenger terminals, cruise terminals, cargo warehouses, and mail facilities that process international passengers and commodities.

CBP's agriculture detector dogs are a key operational component when screening passenger baggage and cargo to prevent the introduction of harmful plant pests and foreign animal disease from entering the United States. A trained agriculture canine (beagle, beagle mixes or Labrador retrievers) can scan a piece of luggage or cargo for hidden or forgotten fruits and meats in mere seconds, thereby saving time and resources for the ports to detect prohibited agricultural products through x-ray or physical inspections. CBP agriculture canine teams operate in airports, seaports, mail and express consignment facilities, and at border POEs detecting agriculture products.

All CBP agriculture specialist canine handlers and their canine partners complete the initial 10–13 week CBP Agriculture Specialist Canine Training at the USDA National Detector Dog Training Center (NDDTC). All the detector dogs at the NDDTC are adopted from rescue shelters in the United States or come to the program from private donations.

CBP is also making great use of technology to transform business processes. CBP is expanding the Enforcement Link Mobile Operations—Cargo (ELMOc) program by deploying mobile devices to CBPAS in all environments (air, land and sea border ports). CBPAS will have remote access available at their workstation, allowing them to close out exams without having to return to ports (real-time release). This facili-

[1] Commercial Targeting and Analysis Center Partner Agencies include Animal Plant Health Inspection Service, Fish and Wildlife Service, Food Safety Inspection Service, Food and Drug Administration, Consumer Product Safety Commission, Environmental Protection Agency, Immigration and Customs Enforcement, National Highway Traffic Safety Administration, National Marine Fisheries Services, and Pipeline and Hazardous Materials Safety Administration.

tates trade with quicker release of cargo and increases the speed-to-market value (delivering containers hours to a day earlier). This is a mobile solution to better facilitate mission critical operations and address the needs of CBPAS to perform inspections of cargo without being bound to a physical location.

Collaboration with Government Partners

CBP's targeting programs and detection capabilities are further strengthened by our extensive partnerships with other Federal agencies and industry stakeholders. CBP enforces laws on behalf of 47 Federal entities. We work closely with our DHS partners, as well as other Federal agencies such as APHIS, FDA, and the Food Safety and Inspection Service (FSIS). We collaborate with the Centers for Disease Control and Prevention, and the U.S. Fish and Wildlife Service (FWS).

CBP's agricultural security activities are supported through a close partnership with APHIS. APHIS establishes agriculture rules, regulations, policies, and training based on pest risk assessments and market access programs. CBP, in turn, implements internal policies to operationalize those regulations. This includes how CBPAS will identify shipments for exams and what safeguards to institute in response to pest detection.

APHIS also collaborates with CBP to develop trade facilitation programs, such as the National Agriculture Release Program (NARP). NARP was developed to identify those agriculture commodities that are imported in very high volumes, but have been determined to be very low risk for introducing potentially harmful plant pests and diseases. Once these commodities are included into the program, they are inspected at lower rates, freeing-up CBP resources to focus on high risk commodities. If at any point the number of serious agriculture pest interceptions on a commodity is deemed unacceptable, that commodity will be removed from NARP.

APTL Programs and Private-Sector Engagement

CBP's mitigation strategy of agricultural security threats involves training, outreach, and partnerships with industry. APTL maintains a number of robust pest exclusion programs centered on some of the most devastating pests, which include the Asian Gypsy moth (AGM) and the Khapra beetle (KB), and risks associated with pests in wood packaging material (WPM) as well as other contaminants.

AGM is a very serious forest pest that can hitchhike on the superstructure of vessels and cargo, feeds on more than 500 plant species, and can fly up to 25 miles a day, dispersing eggs across vast interior woodlands, causing economic and environmental damage due to loss of trees, plants and the costs to trap, contain, and eradicate the population. Native to India, the KB is one of the world's most destructive stored-product pests and is considered one of the top 100 worst invasive species worldwide. Infestations can result in 30 percent (up to 70 percent) grain damage, making the products unpalatable and unmarketable and restricting export of U.S. grain, cereal products, and seeds. WPM poses a high risk for the introduction of serious exotic pests of trees. International standards,[2] as defined by the International Standards for Phytosanitary Measures ISPM 15, dictate that WPM must be treated to eliminate the pest risk before it is used for international shipments. There are also potential threats from contaminants (soil, plant debris, hay, straw, grass). Conveyance contamination provides a pathway for invasive species into the United States which can cause serious harm to crops and livestock. Invasive species are expensive to control and can reduce agricultural production, property values, and water availability.

CBP continues to expand its knowledge of harmful pest behavior, habits, pathways, and host materials and provides regular training, conducted or endorsed by APHIS, to CBPAS and CBP Officers on methods to detect and prevent the introduction of pests. Our efforts also include conducting outreach with the trade community to promote best practices. For example, CBP incorporates outreach as part of our WPM program. This outreach is designed to open lines of communication with trade and transportation communities and leverage their support for utilizing compliant WPM and sound agricultural safeguarding measures. APTL collaborates with CBP Attachés; Centers for Excellence and Expertise (CEE)—specifically, the Agriculture and Prepared Products CEE in Miami, Florida—the Customs-Trade Partnership Against Terrorism (C–TPAT); and the Advisory Committee on Commercial Operations of Customs and Border Protection (COAC) to educate industry about the agricultural risks associated with hitchhiking pests and contaminants such as AGM, Federal noxious weeds, plant parts, and soil.

CBP uses every opportunity to help industry associate the impact of contaminants to their business processes, including providing information to industry to ensure

[2] 7 CFR § 319.40

that their conveyances are cleaned prior to loading cargo destined to the United States. When trade minimizes carrier contaminants, they also reduce delays in the cargo release cycle and decrease shipping expenses for quarantined containers that must be cleaned or treated.

Operation Effectiveness

CBP agriculture specialists continue detecting and sharing best-practices to prevent introduction of harmful pests into the United States where millions of dollars in forest resources are at stake. With the growth of our APTL programs, CBP is aggressively seeking opportunities to enhance our efforts to detect and interdict these agricultural security threats. For example, CBP intercepted AGM in 76 instances in 2014. This was a record year for CBPAS with regard to confirmed AGM interceptions.

We have also expanded our KB pest exclusion through the development of a KB detection training program for agriculture specialists and CBP officers. As a result, KB interceptions soared from 2007 to 2012; so much so that APHIS implemented two Federal orders increasing import requirements for some KB host materials. CBP, in cooperation with USDA, develops additional pest exclusion training programs for its CBPAS and CBP officers as new threats and risks for U.S. agriculture are identified. APTL measures and attributes the success of increased KB interceptions to KB training performed by APTL beginning in 2009: 1,971 of CBPAS were trained in KB detection, identification, safeguarding, and destruction. Following this training, two Federal orders were distributed to the field offices that increased import requirements for KB host materials. Since the implementation of this training program in 2009, interception of KB are almost 12 times higher (14 in 2009, 162 in 2015).

Conclusion

CBP's agricultural program is a critical component of our nation's effort to protect agricultural products from plant pests and foreign animal diseases. In coordination with our partners, CBP's agriculture security efforts facilitate legitimate trade and travel while protecting our Homeland, natural resources, and the U.S. economy.

Chairman Davis and Chairman Rouzer, Ranking Members DelBene and Costa, and distinguished Members of the Committee, thank you for the opportunity to testify today. I look forward to your questions.

Mr. DAVIS. Thank you, Mr. Harriger.

Now we are going to go into the question and answer session. I will start with one question and then let my colleagues begin to ask questions too.

And, Mr. Harriger, I mean we really do appreciate you being here today, but you have truly been upstaged by Calan and Officer Currier today. I can tell you, I didn't realize that you couldn't bring beef jerky into the country. So that was something that I learned today.

Can I ask Officer Currier a quick question about Officer Calan?

Mr. HARRIGER. Yes, sir.

Mr. DAVIS. Is that okay?

Mr. HARRIGER. Please.

Mr. DAVIS. I don't wish to put you on the spot, Officer Currier, first of all, it would be rude for us not to thank you for your service and the way that you have brought an animal like Officer Calan to be able to do the things that he is doing, and I enjoyed you letting me break protocol today and pet him. I know if I see you at a port of entry, I will not do that again. But I really appreciate you protecting American agriculture. And we know the Beagle Brigade has many, many success stories, and could you share just a couple of your experiences with your successes with the Beagle Brigade and Officer Calan?

Ms. CURRIER. Is it working? Yes. Every day is an experience. You never know, it is like opening surprise packages every time you open a suitcase, and some of the strangest things come out. Pas-

sengers are coming from all over the world, every kind of country, and they want to bring their food with them. They want to bring their special food with them. Sometimes we open it up and we find something like the charred monkey meat, where it was being brought in for a wedding. And, of course, with primates, we have to worry about diseases that we ourselves could get, including Ebola, from monkey meat.

A lot of strange meat. I have a photo here of a fetus of a little llama that was brought in, and it was supposed to protect somebody's new home that they were going to by plant by digging a hole and putting it in the yard of the home, and they didn't think there was anything wrong with this. But again, we work together with Fish and Wildlife, and we take a lot of things that they are looking for that they have no opportunity to come across themselves in passenger baggage.

Mr. DAVIS. Thank you, Officer Currier. And very interesting. I would have never thought of the llama story, but I can image that you get something new every day.

And I would like to ask you for a bag of those meat treats, because if they work so well for Officer Calan, they might work in getting us to vote for certain things out here too.

Ms. CURRIER. I don't know.

Mr. DAVIS. You don't think so? Okay. We will take the beef jerky instead.

I am going to yield back the balance of my time, because I can ask some questions later, and get to the rest of my colleagues here.

I would like to yield to the Ranking Member, Ms. DelBene, for her questions.

Ms. DELBENE. Thank you, Mr. Chairman. And thanks again for all of you for being here.

Director Harriger, you talked about specialized technologies, and it is my understanding that a majority of the inspections and interceptions that are done utilize microscopes and hand lenses. And so I wondered what types of new technologies would be helpful for you as you try to become more efficient at these interceptions and identifications?

Mr. HARRIGER. Well, thank you, Congresswoman. So we use nonintrusive inspection also in our layered approach for things entering the United States, when the commodities and passengers are entering the United States. We have some very high-end x-ray technology that we are able to discern whether there are organics, for instance, and we need to take a look at it. So the computer and the technology in there actually assists us in validating that it is something we do want to look at, including biologics, diagnostics, reagents, and other things that may be controlled by Veterinary Services.

Prior to the arrival, we use, in our targeting arena, again looking at that layered approach, all the advanced information provided by the passengers, the airlines, and the vessels and the crew coming in, that they can look and discern what that risk is as well, looking at their prior history, looking at the country commodity matrix, whether or not there is a disease outbreak, for instance, in that part of the world. Factoring all these in to make the decision as to whether or not we want to take a look at that.

In the passenger environment, we seize a lot of commodities. We seized 1.6 million quarantined materials last year. That is one leg, one piece of beef jerky, or a dozen oranges would all count as one. That is in the passenger environment.

In the cargo environment, we don't concentrate so much on the quarantine materials as we do as conducting the exams on behalf of APHIS to find any plant pests, and ensure that it is free of those.

When we extract the pest to pass that over to APHIS, we do have some high-tech biological equipment, some microscopes and such, and we only take the identification of that pest so far, and then we pass that identification over to APHIS. Our job is to filter it down to see, yes, this is something we definitely want APHIS to look at, and then they have the specialty and the experts over there, the entomologists and plant pathologists, that will discern that, yes, this is Asian citrus psyllid or it is a fruit fly, or a pest of concern.

Ms. DELBENE. So are there particular technologies that you are lacking right now that you think would be really helpful in doing the job that you are doing today, or do you feel like you have sufficient resources with respect to being able to identify potential threats when they come in?

Mr. HARRIGER. I believe we have a vast array of resources, including when we are cutting into wood packaging material, our sawzall and all the mechanical parts, we piggyback on some of the assets that our enforcement side has to tear into cargo and stuff, without disrupting the flow of the trade there. But I believe we are doing quite well in that area. Thank you, ma'am.

Ms. DELBENE. One of the things that we have talked about is how important interagency cooperation is to responding, and I wondered if both you and Mr. Shea might be able to give us an example of maybe a particular situation, the collaboration that took place not only between your two organizations, but also maybe with state organizations in terms of response, and how that works.

Mr. HARRIGER. We are piggybacking on APHIS' interaction, plant protection and quarantine side with the plant protection, being the national plant protection organization with the National Plant Board. And there are four regional Plant Boards, and we were invited by APHIS around 2008 to start attending those regional meetings and the national meeting. That is probably one of the most keynote things is being able to get up there with Mr. Osama El-Lissy's staff and talk about what we are interdicting at the port of entries.

We created an Agricultural Quarantine Inspection Partnership Committee that Mr. Shea was instrumental in launching with our former Commissioner Basham back in around 2008 and 2009, which brought in the State Departments of Agriculture, their representative, two State Departments of Agriculture, the members from the State Plant Regulatory Official, as well as the veterinarians, to focus on what are the issues that the states have that CBP can bring to the table from an interdiction standpoint at the port of entry, webbing together also what APHIS has and provides in the regulatory arena.

Mr. SHEA. If I could add just one thing. Of specific interest to the Pacific Northwest, we have been partnering with CBP to inspect ships while they are still in the water for signs of Asian gypsy moth.

Ms. DELBENE. Yes.

Mr. SHEA. I am sure you are aware, we are dealing with some pretty severe Asian gypsy moth and European gypsy moth issues in Oregon and Washington now. But by partnering with CBP to look at these ships before they even reach the port, we have a much better chance of preventing more of them from getting in.

Ms. DELBENE. Thank you. Thank you both.

And I yield back, Mr. Chairman.

Mr. DAVIS. Thank you, Ms. DelBene.

Chairman Rouzer.

Mr. ROUZER. Thank you, Mr. Chairman.

Mr. Shea, my first couple of questions are for you. Obviously, you have touched on this some in your testimony, but what programs have you found to be most helpful in combating pest and disease outbreaks?

Mr. SHEA. The programs that are most helpful and have worked the best are when we have a great collaboration with the industry and the states.

We approach things at APHIS maybe a little differently than some agencies that are more regulatory in nature. We believe pretty firmly that agriculture needs to be profitable if it is going to contribute to American life, and indeed, for our food security. And we want to make sure that what we are doing isn't worse, that the cure isn't worse than the pest and disease sometimes. So the most effective programs are where we have everyone involved, and everyone has skin in the game, so to speak. And a really good example of this is the European Grapevine Moth Program in California, which threatens wine crops throughout the state. We worked with the state government and with producers themselves to eradicate that pest, and we are on the verge of doing it now. We did that with some APHIS money, a little bit of money from California State Government, and the producers themselves actually spraying their crops to knock this moth down. This program has been in place for about 4 years. Chile found the same pest at the same time. They are detecting millions of moths now. We are detecting none in California, and expect to announce eradication later this summer. So that is a program that really works well.

Another example that worked very well was the response to avian influenza in Indiana. The State of Indiana was very well prepared, the industry was well prepared, and we were able to quickly knock out the latest avian influenza issue.

Mr. ROUZER. Thank you very much.

Pursuing that a little further, as you probably know, the livestock community is now interested in pursuing the creation of a program similar to that which we put in place with the 2008 Farm Bill under the Animal Health Protection Act. Do you see a benefit to this approach in protecting animal health as well?

Mr. SHEA. I see great benefit to it. What we have been able to do with the section 10007 money on the plant side is to have more surveys, so we find pests and diseases faster. We have more access

to funding to quickly respond to outbreaks so we can knock them down before they get bigger. That is another important thing. We also have been able to provide funding to states, Mr. Costa mentioned earlier talking with the California County Commissioners, we provided money to them as well for dog detector teams, just like you saw in the demonstration today.

So the section 10007 programs were very effective in that regard on the plant side, particularly for specialty crops. And I certainly think that the animal side could benefit as well from a secure, continuous source of funding, because as I mentioned earlier, we have a lot fewer veterinarians and animal health technicians today than we did 5 years ago. And indeed, over the course of 6 years, we lost a cumulative total of nearly $½ billion in appropriations. So we have had to make do with that. And constant funding in a farm bill provision like section 10007 for the animal health side could be very helpful.

Mr. ROUZER. Thank you very much.

Mr. Harriger, the next question is for you. We have 300 ports of entry into the U.S. Can you please share some of the efforts underway and tools used by your department to secure our food supply? Obviously, we heard a little bit of that already, but if you could put some of those in bullet form for us for the record, that would be most appreciated.

Mr. HARRIGER. Yes, sir. So we take a layered approach in the similar way we do with a lot of our antiterrorism, from doing pre-arrival analysis before the commodity or the passengers even enter the United States, we can sift through and determine with pretty good certainty what types of product and what kinds of baggage is accompanying people we want to take a look at. And that is the first cut on it is the targeting approach.

When the commodities or people actually go through admissibility and come through into the passenger arena, we have our canines that are used almost exclusively in our international airports. One of our most effective tools. We have 118 teams across the United States; 88 of which are the beagles used solely in the air passenger environment. A little bit in the airmail facility. And then we have 30 teams that are the large breed that work in cargo, and also work on the borders, the northern and southern borders.

We train our agriculture specialists in a wide array of detection techniques and smuggling modalities. We piggyback, as I mentioned earlier, on what the CBP officer enforcement side and how they are trained in looking for types and kinds of commodities, secreting smuggled products into conveyances or cars or tires, or that sort of thing. The smuggling community is interested in bringing that commodity in, in the same manner they are with other things for nefarious duties. So with a combined approach from those three angles. Yes, sir.

Mr. ROUZER. Thank you very much.

My time has expired.

Mr. DAVIS. Thank you, Chairman Rouzer.

I would now like to recognize our colleague from the great State of Florida, Ms. Graham, for her questions.

Ms. GRAHAM. Thank you, Mr. Chairman, I appreciate it. And I thank you to all the witnesses, and to Calan, who is asleep. Gosh, I have a puppy. If only Calan could give my puppy some advice.

Again, thank you. I am from Florida, and so you probably can guess what my question is going to be about. Our state has been devastated by citrus greening, which is an example of an infestation that has such a significant impact on the economy of Florida. And it is spreading now. I mean it is spreading, it is in Texas, it is in California. So I would appreciate an update on what we are doing to address this threat, from Mr. Shea or anyone else who would like to speak to the question.

Mr. SHEA. Indeed, citrus greening has been devastating to Florida, and we are doing everything we can to work with the state and the industry to make things better. The Secretary directed that we put an emergency action group in place a few years ago, and we have come up with some tools to help in the short-run. There are really two prongs going on here. One is a long-run research program into maybe finding resistant varieties of tress to plant. The second is short-run, because as the citrus folks in Florida told me, they need help right now. They can't wait for a research program.

And so we have invested money over the last several years in several things. One is antimicrobials, a foliar spray of antimicrobials applied at a certain time can indeed knock the disease down in trees. And there are experiments going on now in Florida that seem to prove that.

Another example of something that might work is thermotherapy; literally heating the tree up to a certain temperature seems to kill the disease, or at least make it dormant for some time. Also biocontrol. The disease is spread by a psyllid, and so we are looking for more biocontrol, which is we find another insect that will kill the psyllid. And that is really the primary focus in California. California has not found the disease in any commercial groves yet. There have been a few backyards, but there has not been any commercial production affected so far. But if we can knock the psyllids down there with biocontrol, that is the goal.

And another thing, particularly in Florida, as I am sure you are aware, people have abandoned orange groves, and when that happens host material remains, and then the disease really gets going. And so we have been working with the state on removing tress from abandoned groves. That removes host material and gives us a better chance.

So we are doing lots of things to try to make it better for the producers in Florida.

Ms. GRAHAM. I really appreciate that because Florida is known for its citrus industry, and we need to be doing whatever we can to provide a remedy.

And I am interested in California. You found the psyllid in private trees but not in the commercial trees. And if that is the case, how are you preventing it from transferring to the commercial groves?

Mr. SHEA. Well, it has been found in backyards. And if I just may say very quickly, that is a big challenge for us on the specialty crop and plant side *versus* the animal side. Not that many people have cattle in their backyards. In Florida and in California, every-

one has a citrus tree in their backyard, so host material is sitting there. And Texas as well, I should add. So the material is there and it is easy to catch hold. The main thing that is going on in California is producers help, they actually treat their groves for the psyllid, to knock the psyllid down. So it is another one of these examples, we can do a part, the producer has to do a part, state has to do a part. So that is the primary focus in California now is psyllid control through a combination of biocontrol and application of chemicals by local producers.

Ms. GRAHAM. Well, thank you. I am from north Florida, which is not typically known as where the orange groves and the citrus groves are, but we are getting involved in the citrus industry, because if you are growing in a greenhouse, you can prevent the psyllid from entry. So I want to thank you, and I look forward to continuing to work with the USDA to eradicate the psyllid and do whatever we can for the citrus industry. It is so important to Florida, it is so important to our country. So thank you very much.

I am out of time. I yield back the time I don't have, Mr. Chairman. Thank you.

Mr. DAVIS. Thank you, Representative Graham.

I would like to now recognize Chairman Austin Scott.

Mr. AUSTIN SCOTT of Georgia. Thank you, Mr. Chairman. And I appreciate the comment about the agricultural industry being profitable. Obviously, if it is not, then it won't be here, and some of our agencies maybe don't share that concern sometimes.

One of the things that you have detected, and this is back in 2010, was the pest that is the cottonseed bug. You detected it in the Florida Keys. Can you give us an update on what has happened with the cottonseed bug?

Mr. SHEA. Okay. We have been able to handle that, but I would like Mr. El-Lissy to get into some detail about that, if he would.

Mr. AUSTIN SCOTT of Georgia. Okay.

Mr. EL-LISSY. The cottonseed bug was detected back in 2010, and since then, we have been working with the Florida Department of Agriculture and local officials in surveying and eradicating the pest. So far, we have been able to eradicate it, and we continue to monitor the population there, just to make sure that it is no longer there, and the eradication is still viable, and we have mitigated the problem that way.

Mr. AUSTIN SCOTT of Georgia. Thank you. And you mentioned the Florida Department of Agriculture. Could you speak further to the relationship between the research and extension at the state level with regard to the eradication of these diseases?

Mr. EL-LISSY. Absolutely. I think we are very fortunate that we continue to have a very strong relationship with the State Department of Agriculture in Florida, as well as the university and the research extension service. To give you a few examples of the collaborative work: Mr. Shea mentioned the Citrus HLB Program, one of the areas that is very, very important for us is the early detection of the disease. Through the collaborative work with the Agriculture Research Service in Florida, and the extension service, we have been able to train canines to detect HLB before the disease has been expressed on the tree itself, during the latency period,

which we believe is going to be very important in managing the disease.

The same is true for eradicating fruit fly outbreaks in Florida and other places. With their support, we have been able to eradicate the oriental fruit fly down in south Florida.

Mr. AUSTIN SCOTT of Georgia. I am down to a couple of minutes. If I could, the high-path avian influenza is a big deal to, obviously, our poultry producers in Georgia. What types of interagency efforts are there to track and monitor the diseases in the wild bird population, which is where, in many cases, it is introduced to the poultry industry?

Mr. SHEA. Congressman, I would like to ask Dr. Shere, who is not only our Chief Veterinary Officer but a poultry disease specialist, to talk about that.

Dr. SHERE. Thank you. As far as the interagency efforts, we work strongly with all of the states and with the industry in the area of high-path AI. It is very important that we have strong partnerships and strong understandings with them. We want to look at what the infrastructure is in each state and try to build that, and build around that. We work through a cooperative agreement process reinforcing, not only their resources, but that partnership. So we work strongly with each of the states, their Departments of Agriculture, and with the wildlife agencies within those states, the DNRs, also to help us with the tracking of this disease.

We have tested, through a national tracking program and testing program, over 40,000 wild birds. We use that system as an early indication of the disease and a warning system for us.

Mr. AUSTIN SCOTT of Georgia. I am down to less than a minute. What are the biggest challenges with regard to tracking that disease?

Dr. SHERE. We often are asked where it is going to pop up next, and that is a tough call because this disease is transported, as you know. The outbreak in 2014 and 2015 was spread by wild bird populations.

Mr. AUSTIN SCOTT of Georgia. Yes.

Dr. SHERE. Then in Indiana, we feel like it was a resident low-path AI that was in the birds and then just changed into a high-path AI. We caught it early into a high-path version. So it was a resident low-path, and we have low-paths circulating in the wild birds. So the challenge is when is it going to change, and where is it going to change, and is it going to be in a poultry area that is going to get affected. So that is the challenge: tracking it from that standpoint.

Mr. AUSTIN SCOTT of Georgia. Well, thank you for your service. I am going to have to step out for another meeting, but I appreciate your service.

Dr. SHERE. Thank you.

Mr. NEWHOUSE [presiding.] Thank you, Mr. Scott.

Mr. Costa from California.

Mr. COSTA. Thank you very much, Mr. Chairman. I gave a preview in my opening statement about the questions I wanted to ask all of you, and that is whether or not adequate safeguards are in place, and whether or not your agencies have adequate funding, and how we can better improve the robust monitoring programs

that take place at, not only ports of entry of all kinds, but also air terminals and others where we have international travel that takes place.

In California, again, to kind of make it local, we have the issues with citrus greening most recently, as you are aware, and also the high-path avian influenza, which is really a migratory bird disease that, as in the migration pattern as it is going from Canada to the U.S., to Mexico, landed in places where they have been able to provide the pathogens that have allowed it to be transmitted to domestic poultry operations.

So I guess with those two examples in mind, can you please give us a snapshot on what you are doing and whether or not you have adequate resources to do it?

Mr. SHEA. If I may start, and then I will turn it over to Mr. Harriger for some more comments.

I think we do have really good measures in place and resources in place on the plant side. I think the fact that we detected fruit flies 12 times this year, and were able to quickly respond to those and eradicate those, shows how good the detection systems are. Obviously, we are not——

Mr. COSTA. On that point, and this is a debate that has been going on for years, because I was a part of that effort back in the 1980s where we knocked down the Mediterranean fruit fly in the Bay Area, some argue that we never really knock it down, we never really eradicate it; that we simply make it more dormant and then it pops its head up somewhere else. Do you care to opine on that?

Mr. SHEA. We disagree with that. We believe that we are able to eradicate it, and that it is not endemic in California. And I would point out that we not only had Mediterranean fruit fly outbreaks, but oriental fruit fly outbreaks. So there are different flies being detected. So I don't think that it is a matter of them being dormant or endemic in California, it is just a constant threat because of the volume of traffic. And when I say traffic, it is not just import of food products, but people who often bring it with them.

Mr. COSTA. Now, I noted that in my comments. And it is not intentional, obviously, but it happens.

Mr. SHEA. I will ask Mr. Harriger if he would like to add to that.

Mr. HARRIGER. Yes, thank you, sir.

So we began an educational campaign. APHIS provides all of the training for all of our ag specialists and our CBP officers. So specifically for Asian citrus psyllid, we built a very robust training module that is easy to deliver, does not take a long time to get that information across, that covers epidemiology, the disease transmission, the nexus between the bug and the disease, everything that APHIS needs to provide our ag specialists, who are scientists and specialists, so that they understand, have a better concept of that risk. And then they take that information and associate that with the targeting and the incoming traffic, pouring through to see whether or not those individuals might have something of interest.

Further, in San Francisco, we were able to train our canine cadre out there to hit on curry leaves. Curry leaves from some source countries is a host plant for Asian citrus psyllid as well. So it really

assists in expanding the battery of the canines' capabilities to use that as that extra detection device.

Mr. COSTA. And what about migratory species that, I mean really fall in a different category, obviously? There are not ports of entry, these are part of the Pacific Flyway and they are just doing what is their natural migratory patterns. What tools do we have to combat those kinds of impacts?

Mr. SHEA. Of course, we can't really prevent them from arriving. What we need to be able to do though is find out very quickly if they are carrying any disease. And from year to year, that can change because avian influenza viruses can mutate from one form to another, so we have to maintain surveillance of wild birds in the Pacific Flyway to see if they are infected. And as Dr. Shere mentioned earlier, so far this year, it has been very good. The findings are great. We had over 40,000 wild birds tested and no avian influenza detected. But last year, there were birds detected with avian influenza. The best we can do with migratory birds is test them to give some indication of where they might be and where they might drop the disease.

Mr. COSTA. Well, thank you very much. Keep both Subcommittees updated as to what resources you may need. Obviously, this is an important issue, as I said in the outset, and it is something that we monitor all the time in California's breadbasket.

Thank you so much.

Mr. NEWHOUSE. Thank you, Mr. Costa.

I will recognize myself now for 5 minutes.

I represent the State of Washington, and this is certainly a very big issue in our state as well. And I just want to thank you, Administrator Shea, as well as Mr. Harriger for being here, and all of our witnesses on the panel, especially our canine guest. Kind of brings a different kind of atmosphere. Maybe we should have canines here more often.

But I would say that the average American, myself included, probably takes for granted some of the remarkable things that are done to protect our food supply and our agricultural industry from pests and diseases, so I just want to recognize the great work that you do. I am a former director of our Department of Agriculture, and sometimes I felt like I was the Little Dutch Boy with my finger in the dyke, which is, I know, sometimes how you feel as well. There are a lot of things trying to get in, and a lot of effort that we have to put forth to prevent that.

Mr. Administrator, if I could ask you a question about some importation of fruit. In January of this year, APHIS published a systems approach for the importation of apples and pears from our EU member countries. One thing that I noticed was that Poland, which has never before imported apples to the U.S., was on that list. One of APHIS' most important missions, as you know, is to protect the U.S. from invasive species of pests and diseases. Could you tell us, have Polish apples and pears ever been subject to a full disease and pest management risk analysis, and if not, is there any plan to conduct that prior to the importation of Polish fruit? Will they be subject to U.S. phytosanitary rules for importation?

Mr. SHEA. Any fruit imported from any country will be subject to our phytosanitary requirements. We have not reached a final decision on that request.

I would say that the European Union presents a specific challenge because we try to treat the European Union as one entity, and each country may still have slightly different pest and disease situations. So we are aware that there is concern in the apple industry. In fact, we just met with representatives of the apple industry a few weeks ago. We meet with every sector of agriculture annually to kind of touch base, make sure we are doing the right thing, and indeed, they brought this subject up. So I assure you today that we will take a hard look at Poland and the entire EU before we finalize any kind of regulation.

Mr. NEWHOUSE. I appreciate that. Thank you.

Another question for you is on the notice of intent APHIS issued to prepare an environmental impact statement for revising biotech regulations. This notice seems to pose, I would characterize it as, somewhat vague definitions on the scope of the new regulations. They may be potentially including things like seedless watermelon, or even methods used in organic production. And that seems like it could be a very significant revision. But on the same hand, the President's budget only included a one percent funding increase for biotechnology regulatory services. So does APHIS plan to complete its revisions under this Administration, and if so, does the one percent reflect the scope of the expected changes?

Mr. SHEA. We certainly do hope to complete this within this Administration, but I would point out that we haven't made any final decisions. Indeed, the notice of intent laid out four possibilities. We have not chosen any one of the four possibilities. I know that there has been some concern that we were going to be regulating more things than we have in the past, and there may be some things that would fall under the regulation that did not before, but we think it is just as likely, probably more likely, that there are things that are currently regulated that would not be in the future. These regulations have been in place for almost 30 years. The entire industry has changed dramatically. So it could very well be that we are regulating things we don't need to spend time on, and there are some things we should spend some more time on. I think on balance, it is likely we will have either the same or even less regulatory work. So I think that the budget request is in line with that.

Mr. NEWHOUSE. Yes.

Mr. SHEA. I certainly regret that some folks believe that the notice of intent is an indication we intend to do a lot more regulation in biotechnology, because that is really not where we think we are headed. But again, I don't want to prejudge it because it is, indeed, still in the comment period.

Mr. NEWHOUSE. Yes. Well, thank you, Mr. Shea.

And again, I appreciate all of our guests this morning, and thank you for your testimony on this important issue.

And I would recognize Mr. Vela.

Mr. VELA. Thank you.

Mr. Shea, I have two questions for you. And I am very familiar with your agency's work on the Texas-Mexico border. And as you know, along the Rio Grande and on the California-Arizona-New

Mexico border as well, the border walls don't really help us fight disease. Right? And with respect to, whether it be boll weevil or citrus greening, or fruit fly or even fever tick, one of the things I am wondering about is, what are your thoughts in terms of efforts to fight disease on our side of the border *versus* the efforts of the Mexican Government to do so on its side?

Mr. SHEA. I think we have really good relationships with the Mexican Government in terms of agriculture. And they are indeed working on lots of pests and diseases. They are working to control tuberculosis, they are working to control boll weevil and fruit flies. Indeed, we are partners with Mexico in the Fruit Fly Program. The problem that they and we have run into is the violence on the Mexican side of the border has made it so we can't send our people over to do work the way we used to. And, indeed, we have Mexican nationals who work for us on the other side of the border who sometimes can't report to work. And so what that means is spraying doesn't take place for boll weevil as it should. Spraying doesn't take place for Mexican fruit fly as it should. So I don't think it is a lack of will from the Mexican Government so much as the very sad violence that is taking place there that is causing a lot of the problems, because there is, indeed, a commitment by our counterparts in Mexico to work on all of these issues, and we work very well with them.

Mr. VELA. Yes, I read it almost exactly the same way. I think that sometimes what we miss up here is when we talk about border security issues like that, we tend to forget to focus on the issues of violence on the other side of the border, and what kind of effect it has on these very important issues that we are talking about today.

The second question I have, what is the current status of our efforts to control fever tick?

Mr. SHEA. I am going to ask Dr. Shere, our Chief Veterinary Officer, to talk about cattle ticks, if he would like, please.

Dr. SHERE. Yes, thank you. As you know, cattle fever tick has found new hosts and a new ability to move. Currently, this year we have seen an expansion of the cattle fever tick problem. It is a ticky year. When it is wet and moist we see ticks come in waves, and from year to year; that can vary. What we have seen is with the Nilgai, and I don't know if you are familiar with the Nilgai. Hopefully you are.

Mr. VELA. Yes. I represent the district where they eradicated, killed 200 of them.

Dr. SHERE. Okay, great. Well, what we are finding with those Nilgai is they have set up their own migration pattern, they migrate up the coast, and we have seen them move up the eastern coast along the Gulf of Mexico, and they bring the ticks with them. So they are bringing that tick with them. And that has expanded the quarantine zone in both areas.

So we have seen an increase in the need to respond to that, increase in resource needs, increase in the quarantine zone. So the ticks are progressively moving on those animals.

It becomes difficult when you have to control a migrating population such as whitetail deer or the Nilgai. If it were just cattle, and we were just dealing with the ranches, it would be fairly easy

to come in, spray them on a regular basis, and take care of the ticks. We are investigating new methods to deal with them. In the event that we develop those methods, that is what will help us greatly, and one of those is perhaps, it is not a tick vaccine, but it is a tick treatment that infects the gut of the tick and the females lay fewer eggs. So instead of laying in the neighborhood of hundreds of thousands of eggs, they lay thousands of eggs, and you reduce the population through the use of that. Now, we haven't gotten that license yet, but we are working on a pilot study to try to make sure that we can perhaps utilize that.

So there are new methods out there that we have to use and new techniques to control this, when just simply dipping and spraying isn't getting it done.

Mr. VELA. Well, I would like to work further with you on that, as I have noticed over the past year, the quarantine is moving further and further to the north.

I only have 15 seconds left, so I will make this short. Mr. Harriger, what I would like to work with you on is, about 6 months ago I received a letter from about 12 of your agents who handle canines at the Gateway Bridge in Brownsville. I don't know if you are familiar with that issue. They had some concerns about the conditions in which those canines were kept, and we have been working with the agency and if we could just, moving forward, do what we can to expedite the fixing of the kennels there at the Gateway Bridge, and whatever else we can do to help, I would like to work with you on that as well.

Mr. HARRIGER. Absolutely, Congressman. We look forward to working with you. Thank you.

Mr. VELA. I yield back.

Mr. KELLY [presiding.] The gentleman's time has expired. I now recognize Mr. Denham for 5 minutes.

Mr. DENHAM. Thank you, Mr. Chairman.

Mr. Shea, first of all, let me thank you for the work that you have done on avian influenza in California. California continues to face a number of different threats, but I know there has been some great work done on avian influenza.

One of our other challenges: I have a lot of citrus and stone fruit crops in our area. We have had issues with citrus greening and plum pox virus. Those have been addressed in our area. Our concern is that Canada does not have the same eradication policies that we do. My question to you would be, are you working with our Canadian counterparts, and do you see future efforts there to address it before it comes to our area?

Mr. SHEA. Specifically with plum pox?

Mr. DENHAM. Yes, please.

Mr. SHEA. Yes. We have been working very closely with them. I will ask Mr. El-Lissy to touch on that because he is part of the North American Plant Protection Organization that works closely with Canada. So, Osama, do you want to talk about that a little bit, with plum pox, please?

Mr. EL-LISSY. Right. Very good, thank you. Absolutely. We have been working with Canada on coordinating our efforts in eradicating the plum pox virus in New York and Ontario. So far, we

have been surveying for PPV in California. We have not detected any PPV in California, so we are in good shape that way.

With respect to stone fruit, we have been working with Mexico to ensure that we are able to continue to export stone fruit from California to Mexico without the overburden of inspection that Mexico had required in the past. And we are making very good progress there as well.

Mr. DENHAM. Thank you. We have been having a number of discussions with the Ambassador on TPP. My concern and questions have been largely around the sanitary and phytosanitary standards. As you know, I am sure you are aware, at times our crops get held up in foreign ports over different issues. I would ask if you have seen the phytosanitary/sanitary piece of the TPP?

Mr. SHEA. Yes, we have been involved with that. I think there were 21 different sessions, and we were part of 17 of those sessions in negotiating the TPP. I would say something that is important about this is, many of the pests and diseases we see end up coming through smuggled goods or inadvertent transmission. We really don't find a lot of pests and diseases on legitimately certificated agricultural imports. So something like the TPP has the potential to legitimize trade and, therefore, come under our purview for inspection. A lot of what we find is, indeed, smuggled material, whether it is from Asia or other parts of the world, and that is where the pest and disease problem is, because the material will come in mismanifested, to use a nice word, *mismanifested,* deliberately mismanifested, and a legitimate trade route like TPP might provide would actually be beneficial from that standpoint. But I also understand your concerns about what other countries do to us. And what we have tried to do is work very closely with them. We have people in three different countries, and last year alone, those people were able to get over $25 million worth of product released that had been held up for what we think were probably not really legitimate phytosanitary and sanitary reasons.

So we continue to work on that issue and understand it.

Mr. DENHAM. Thank you.

And, Mr. Harriger, I mean citrus greening, the plum pox virus, the glassy-winged sharpshooter, have been a big issue in the past. What are the joint issues that are being resolved between agencies to tighten up these illegal movements that could bring these different pests in?

Mr. HARRIGER. So every regulation that APHIS proposes through rulemaking comes over to our shop to take a chop on it, to discuss the ramifications, do an impact statement. So anything future down the road for legitimate trade, as Mr. Shea alluded to, we think we have a pretty good control on. We call that the *known,* and we know that that is coming, we anticipate that they will abide by the rule and regulation certification, *et cetera,* animal products and/or plant products. It is that unknown that we are more concerned about. It is the things that are mismanifested or they didn't quite characterize it as it was stated to be. That is where we think our targeting information is vital from the very, very get go, but that is fed by APHIS' Smuggling, Interdiction, and Trade Compliance, and their IES Group, their Investigative Enforcement Services, gives us key information on the back-end of

things they have found already stateside, that we plug into our targeting layers so that we can try to pick that up and make a nexus to possibly some other conduits, and try to plug a hole in that and stop that from entering the United States.

Mr. DENHAM. Thank you.

Mr. KELLY. The gentleman's time has expired.

I will now recognize myself for 5 minutes for questions.

Mr. Administrator, first, thank you to all of the witnesses for being here, and thank you for the demonstration.

Mr. Administrator, in 2010, APHIS detected the introduction of the cottonseed bug in the Florida Keys. Can you update the Committee on the status of this agricultural pest since its detection?

Mr. SHEA. Yes. We have been able to eradicate that entirely.

Mr. KELLY. Very good. And to follow up on a different line of questions, how many market access requests by U.S. producers or companies are pending at APHIS currently?

Mr. SHEA. I don't have the exact number, but we are preparing a report that we will have ready to submit to you, and the Appropriations Committee as well, very soon that details all those numbers.

Mr. KELLY. Absolutely. As a part of that also, we just would like to know the average amount of time it takes for a request to be processed, and the success rate of those that are processed. If you have any thoughts now, I would be glad to hear them, but if not, we will wait on the report.

Mr. SHEA. Yes, we will submit the report.

Mr. KELLY. I would appreciate shedding a little more light on what happens to shipments once they pass, or a contaminant is detected, what happens to that shipment? Is it destroyed, are the contents treated and then brought on? Can you kind of talk about what we do when we detect?

Mr. SHEA. Yes, it depends on what it is. In some cases, we will re-export it back to the country it came from. Some cases it can go to a third country that might be willing to take it. In some cases it can be fumigated, treated, and any pest and disease problem mitigated and then enter. Or it can just be destroyed. So it depends on what kind of pest it is, and what the options are for that particular pest.

Mr. KELLY. Thank you.

And, Mr. Harriger, final question from me. In your testimony, you mentioned there are ports where there are no CBP agricultural specialists, but other CBP officers are cross-trained to detect agricultural items of interest. Can you describe or talk a little more in-depth about how we cross-train and how many are cross-trained, and if that works or not?

Mr. HARRIGER. Absolutely, sir. So it begins at the Federal Law Enforcement Training Center down in Glynco, Georgia, where APHIS has assets there that provide over 24 hours of training as part of their regimen on precisely those threats that confront them; what they need to know as CBP officers. They are a law enforcement component, they are armed, they deal more urgently, with the admissibility issue, but they have to keep in mind, and do keep in mind, those threats posed to us from the agricultural sector. So they are taught to refer to an ag specialist those issues that are

of concern, other than the very simplistic ones on the Mexican border, for instance, citrus is prohibited, they can pick that up in a booth when there is no ag specialist. In those ports with no ag specialists, they are taught to seize that commodity. In every one of those locations, it is a very, very low volume, what we refer to as a low-end agricultural port, we do not put assets of ag specialists because of their expertise, and there are only 2,400 of them, we want them at the ports like JFK that present that highest risk that APHIS has presented to us, whether it is in pathway from passenger or in the trade environment. Those ports of entry with no ag specialists have no legitimate trade entering that has anything of agricultural concern.

So it is a combination of training that we get done at the academy, and then the follow-up training that we get from our agriculture specialists who are assigned those outlier ports, to be that point of contact for the port director and staff if they have any questions.

Mr. KELLY. Thank you to all the witnesses.

I yield back the balance of my time, and would like to make the closing remarks.

First of all, I would just like to thank each and every one of you for your service to our great nation. I thank you for your time here testifying today, but mostly I thank you for a career of service to this great nation. Like Chairman Conaway said earlier, security and agriculture are linked at the hip. They are joined. They are Siamese twins. I think a nation that could sustain and defend itself will always endure whatever threats that we have. And you guys all play such an important role in ensuring that this country is safe from pests, from contaminants, and protecting our food sources and all those things. So thank you so much for what you do for that.

And I just want to say a special thank you to our Customs officer for the demonstration today. And having gone through the Customs process through multiple deployments, it is so important what you do because we don't see the large scale of how many different ways there are to get contaminants into this nation, and you guys are responsible for being that guy who is plugging the hole with his finger, but you guys have to plug every single threat. And I thank you so much for your continued dedication to this nation, and to protect our citizens here in the United States.

So with that said, under the rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional material and supplementary written responses from the witnesses to any questions posed by a Member.

This joint hearing of the Subcommittee on Biotechnology, Horticulture, and Research, and the Subcommittee of Livestock and Foreign Agriculture is now adjourned.

[Whereupon, at 11:28 a.m., the Subcommittees were adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED STATEMENT BY WESLEY BISSETT, D.V.M., PH.D., ASSOCIATE PROFESSOR AND DIRECTOR, TEXAS A&M COLLEGE OF VETERINARY MEDICINE & BIOMEDICAL SCIENCES VETERINARY EMERGENCY TEAM

Infectious Disease Response: The Value of a College of Veterinary Medicine Centric Approach

Chairman Conaway, Ranking Member Peterson, and Members of the United States House of Representatives Committee on Agriculture.

I am Dr. Wesley Bissett, Associate Professor and Director of the Texas A&M College of Veterinary Medicine & Biomedical Sciences' Veterinary Emergency Team. The Texas A&M Veterinary Emergency Team (VET) was founded in 2010 in response to the need for deployable veterinary medical resources that became evident in the aftermath of Hurricane Ike. The Texas A&M VET has developed into the largest and most sophisticated veterinary medical emergency response team in the country. The VET has acquired and developed emergency response resources and equipment valued in excess of $2 million and has deployed to multiple incidents within the State of Texas. Our deployments include the 2011 Bastrop Complex Wildfire, 2013 West, Texas fertilizer plant explosion, 2014 Dallas, Texas Ebola response, 2015 Memorial Weekend floods, and the 2015 Rowlett, Texas tornado. We have also deployed to multiple in-state small-scale search and rescue missions. In each of these, we have delivered veterinary medical capabilities to the scene of the incident and have been instrumental in delivering veterinary medical care to search and rescue dogs participating in the response and injured or ill resident animals impacted by the emergency or disaster.

A key component of the Texas A&M VET capability is the inclusion of senior veterinary medical students from the Texas A&M College of Veterinary Medicine & Biomedical Sciences in our response efforts. Senior veterinary medical students have participated in all deployments of the Texas A&M VET with the exception of the 2014 Dallas, Texas Ebola response. Participation of these students in deployments provides them a foundation of community service and emergency preparedness and response.

The Texas A&M VET also provides the nations only required clinical rotation in veterinary medical emergency preparedness and response and has done so since 2012. The educational approach used places instructors and students in jurisdictions for the purpose of developing preparedness plans designed to limit animal suffering and loss during times of disaster. This effort provides subject matter expertise to local jurisdictions and results in a "Whole Community" approach to emergency preparedness and response while preparing veterinary students to lead preparedness efforts in the communities they join after graduation. The Texas A&M VET will have educated in excess of 520 veterinary medical students in this discipline by the end of the 2016 academic year.

The Texas A&M VET has recently proposed a pilot college of veterinary medicine centric approach to emergency response. Discussions have thus far focused on non-infectious disease response. I appreciate the United States House of Representatives Committee on Agriculture accepting my written statement on the benefits of expanding this approach to infectious disease response. As part of my statement, I will highlight the key benefits that a college of veterinary medicine centric approach will provide to our nation's ability to respond to infectious disease events that may potentially endanger animal agriculture.

The likelihood of foreign animal and emerging diseases being introduced into our agricultural system is at a heightened state as a result of modern transportation systems and a global agricultural economy. In addition, our borders provide an ever-present risk of the introduction of harmful biological agents that pose the potential to deliver a devastating blow to our food producing systems. This increased risk is occurring at a time when fewer veterinarians are participating in the delivery of veterinary medical care to agricultural animals and Federal and state regulatory agencies charged with protecting our food systems, are dealing with ever-present budgetary constraints. The 2015 highly pathogenic avian influenza (HPAI) outbreak demonstrated how diseases tax existing response capabilities.

The basis of this proposal is development of a pilot project focused on building Federal emergency response capabilities at five to seven colleges of veterinary medicine. This will allow development of a core group of responders trained to integrate under the regulatory agencies in efforts to limit the spread of and eliminate diseases that threaten our nation's food supply. The Texas A&M VET is a proven example of the value of this type of system.

The 2014 Dallas, Texas Ebola incident did not threaten agricultural animals but did require trained responders to deal with a pet that was potentially exposed to the Ebola virus by its owner. The Texas A&M VET was able to provide responders

that were trained and equipped to safely quarantine this animal. We were able to do so as a result of our efforts to develop an all-hazards response team and also because of the myriad of expertise present at academic institutions.

Transposing this approach on the response that will be required when large populations of food-producing animals are threatened by disease demonstrates the strength of this proposal. The Texas A&M VET alone can provide approximately 50 responders from our college of veterinary medicine trained in the use of required personal protective equipment and with the ability to handle agricultural species. Personnel are also proficient in working under the incident management system and are capable of providing regulatory agencies with a cadre of trained professionals capable of performing the requirements of an infectious disease response. When this capability is expanded across multiple colleges of veterinary medicine a substantial increase in Federal response capacity is possible.

An additional benefit in a college of veterinary medicine-centric approach is an increase in agricultural literacy. Our food-producing systems are tremendous examples of American efficiency and productivity. Fewer and fewer people are producing ever-increasing amounts of food products. This increased efficiency and productivity provides a distinct advantage but does also introduce a disadvantage. As fewer people are required to feed our nation and the world it results in fewer people understanding what goes into producing a gallon of milk or pound of ground beef. Our nation is reaching a point where the separation from an agrarian society is reaching a generational basis. This ultimately results in our nation having fewer people trained and able to respond to agricultural emergencies. A college of veterinary medicine-centric approach to infectious disease response will not reverse this trend but it can build a foundation of trained professionals within the veterinary medical community. The Texas A&M VET approach of including senior veterinary medical students in our response efforts helps ensure that our graduates understand modern food production systems and will enhance the capability to assist in building the resiliency of our food producing systems.

In addition to the efforts described above, the Texas A&M VET is also serving as a housing agency for multiple veterinary medical reserve corps units in our state. This approach allows veterinarians to join the Texas A&M VET during emergency responses. We provide training to insure that these responders are prepared to deal with disaster environments and capable to complete assigned missions. This approach combined with increased agricultural literacy and training in the use of personal protective equipment and infectious disease response in our graduating students has the potential to provide an even greater response capability that will help insure that infectious diseases do not threaten our nation's ability to provide an inexpensive and safe food supply.

A final, and potentially the most advantageous benefit of a college of veterinary medicine-centric approach is the potential to expand this into an academic institute-centric approach. Academic institutions house the width and breadth of intellectual expertise capable of enhancing a science-based approach to infectious disease response that more closely matches the speed of commerce. They provide the ability to augment and enhance the surveillance and epidemiologic efforts housed in regulatory agencies providing a more robust response capacity across the spectrum of disciplines required to most efficiently contain, control, and eliminate diseases threatening our nation's agricultural infrastructure. As an example, the Texas A&M University System is home to many areas of focus that have been largely, an untapped resource. Our colleges of veterinary medicine, agriculture, and public health as well as infectious disease centers and institutes, and agricultural and engineering extension services, when directly involved in response efforts, provide a broad range of expertise that will be helpful to regulatory agencies during infectious disease response operations. Our combined efforts would decrease the negative impacts of these emergencies to producers, agriculture communities and the U.S. economy while also ensuring that the U.S. food production systems maintain their preeminent role in the global agricultural community.

I appreciate your acceptance of this written statement and stand ready to provide additional information if so requested.

Sincerely,

WESLEY BISSETT, D.V.M., Ph.D.,
Associate Professor & Director, Texas A&M Veterinary Emergency Team.

SUBMITTED QUESTIONS

Response from Kevin Harriger, Executive Director, Agriculture Programs and Trade Liaison, Office of Field Operations, U.S. Customs and Border Protection, U.S. Department of Homeland Security

Questions Submitted by Hon. Ann Kirkpatrick, a Representative in Congress from Arizona

Question 1. Does CBP plan to hire the 631 additional CBP Agricultural Specialist as called for in your agency's own Workload Staff Model?

Answer. The Workload Staff Model (WSM) and Agriculture Resource Allocation Model (AgRAM) are decision-support tools used by management to ensure staffing resources are aligned with the existing threat environments, while maximizing cost efficiencies. The models incorporate the most recent years' workload data to determine staffing requirements and consider factors for future facility enhancements and projected volume growth in cross-border commercial and passenger traffic. They do not necessarily align with available funding. The gap in CBP Agriculture Specialist staffing will be partially mitigated through the expansion of the agriculture-related Business Transformation Initiatives (BTI) like the expansion of Enforcement Link Mobile Operations-Cargo (ELMO-c) initiative to outfit CBP Agriculture Specialists with mobile devices to release more cargo in a shorter amount of time since they do not have to return to the office. Based on the anticipated fee collection projections used to build the FY 2017 President's Budget, CBP intends to hire 145 Agriculture Specialists during Fiscal Year (FY) 2017.

Question 1a. If so, when will this hiring take place?

Answer. Hiring for all frontline positions is ongoing and CBP is actively recruiting for CBP Officers and Border Patrol Agents. While we have issued some announcements for Agriculture Specialists and have a number of candidates in the pipeline, we do not currently have any vacancies. The projected 145 Agriculture Specialists that CBP intends to hire are contingent upon an anticipated increase in Agricultural Quarantine and Inspection (AQI) user fee collection revenue, allowing CBP to recover a larger portion of its eligible AQI costs and to cease supplementing those activities with appropriated resources. Certain AQI fee rates were adjusted, effective December 2015, through a United States Department of Agriculture regulation. Based on the anticipated fee collection projections used to build the FY 2017 President's Budget, CBP intends to hire 145 Agriculture Specialists during FY 2017.

Question 2. How does CBP propose to fund the hiring of 631 additional CBP Agriculture Specialists?

Answer. The Agricultural Quarantine and Inspection (AQI) user fee rate increases that became effective December 28, 2015, are currently anticipated to provide full cost recovery for providing AQI services in the activities with fees. Updated projections for AQI collections in FY 2017 are included in the AgRAM model. This model projects that the healthy U.S. economy will generate increased AQI collections to fully reimburse CBP's costs for these AQI activities and allow CBP to rededicate the appropriate resources presently supplementing that activity to allow for the hiring of an additional 145 CBP Agriculture Specialists. The FY 2017 Congressional Justification does reflect this updated projection for total anticipated CBP AQI fee collections and prior year carryover of $617.099 million for FY 2017, but does not explicitly list an increase to the number of positions supported by the AQI fees.

As reflected in the AgRAM, this increase in expected collections will reduce the CBP Agriculture Specialist requirements gap to only 174 specialists. This assumes the enactment of the COBRA and IUF legislative proposals supported by the FY 2017 President's Budget request.

The gap of 631 in CBP Agriculture Specialist staffing will be partially mitigated through the expansion of agriculture related BTIs like the expansion of Enforcement Link Mobile Operations-Cargo (ELMO-c) initiative to outfit CBP Agriculture Specialists with mobile devices. The mobile devices allow CBP Agriculture Specialists to release more cargo in a shorter amount of time since they do not have to return to the office. Full deployment of mobile devices to all CBP Agriculture Specialists is expected to be completed by the end of 2016. Also, The Agriculture Pest Exclusion Coordinator Specialist (APECs) program was expanded during FY 2015. This innovative program expands upon the scientific expertise of our CBP Agriculture Specialist cadre, specifically those who actively seek to increase and exercise their Cargo Release Authority (CRA) and take on the additional responsibility of facilitating trade through the identification of less significant, non-reportable plant pests and organisms. The APECs program, coupled with CRA, allows cargo that is found contaminated with a less significant, non-reportable plant pest to proceed more quickly and efficiently through the POE. The expansion of the APECs program to

Nogales, Arizona, Otay Mesa, California, and Laredo, Texas, POEs has facilitated the release of approximately 600 agriculture shipments a month. Collectively, that equates to about one hundred staff hours per month saved which is in turn redirected to high-risk agricultural exams and activities within the ports. This program will continue to be expanded through FY 2017.