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Committee on Homeland Security
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Subcommittee on Emergency Management and Technology

Hearing

“Surveying the Threat of Agroterrorism: Perspectives on Food, Agriculture, and
Veterinary Defense”

WITNESSES

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Statement for the Record of Cris Young

Good afternoon, Chairman Strong, Ranking Member Kennedy, and distinguished members of the subcommittee.

My name is Dr. Cristopher Andrew Young, and I am a veterinarian, a former USDA Program Director, and a retired US Army Colonel. I am here today representing Auburn University, though the views I express will be my own and do not necessarily represent the views or positions of the university.

I am here today to discuss the critically important topic of agroterrorism.

Each year, Auburn University's biosurveillance research team reviews several thousand articles across a broad spectrum of open sources. Also, on average, a couple of hundred books are read, perhaps not completely, but certainly, we thoroughly read those sections that are relevant to ongoing analytical operations and agroterrorism. One consistent finding is that there is no single vetted source of information addressing the diversity and complexity of threats to food, agriculture and water. Also, even more importantly, no work explains how those threats can be mitigated.

Our team spends a great deal of time examining data generated by private industry, which holds more food, agriculture and water related data than the government. Food, agriculture, and water systems are widely considered essential components of our national security. Without security and resiliency these critical infrastructures that provide safe, reliable, food and water supplies are vulnerable to exploitation thereby jeopardizing our nation's public health, economic prosperity, military readiness, and force projection capability.

The term biosecurity traditionally refers to a set of practices on farms designed to minimize risk from disease in plants or animals. But biosecurity can also be thought of as a desired state of being, a matrix of success, if you will, where risks and threats have been identified and neutralized before they become manifest.

The term "biosecure" means to be protected against harmful biological agents (both naturally occurring or intentionally introduced) including infectious diseases, pests, and invasive species, etc. that may have impact on the health status of a system (animal, plant, ecosystem). Maintaining systematic biosecurity entails continuous monitoring. This persistent state needs to occur across the continuum of security domains, including:

- Agriculture Security (both animal and plant)
- Public and One Health Security
- Laboratory Research Security
- National Security and Defense Intelligence
- Environmental Security

To frame the problem succinctly, if the United States ever goes to war with a pacing adversary, food, agriculture, and water will be as important as traditional military concerns, such as missiles, submarines, etc. Critical problems could emerge first to our west in the Indo-Pacific but perhaps even within the continental U.S. Wars can be and are lost by the lack of material, but they can also be lost due to strategic and tactical errors involving food and water. Non-state actors like terrorist and violent extremist organizations may also target our homeland food supply via the agriculture sector. I am especially concerned about this during gray-zone conflict.

What would our adversaries' objectives be?

Put simply, their goal is food and water disruption, followed by tactical and strategic dominance, and eventual destruction. This paints a bleak picture, but food, agriculture, and water threats are already widely distributed and continually growing in intensity. Both the critical infrastructure and the food supply itself will almost certainly be more intensely targeted in the future. Attacks are likely to be geographically diffused, staggered over time and be combined with cognitive warfare elements, the specifics of which are more suitable for a classified forum. Because of this threat landscape, it is critical that the U.S. Government better prepare for and mitigate threats to our agriculture sector.

I would like to thank Committee Chairman Strong and the Members of the Committee for holding this hearing and for the opportunity to testify on this important issue. This concludes my opening remarks, and I'll be happy to answer any questions.

Surveying the Threat of Agroterrorism: Perspectives on Food, Agriculture, and Veterinary Defense

Statement of

Marty Vanier, DVM

Presented to the

**SUBCOMMITTEE ON EMERGENCY MANAGEMENT
AND TECHNOLOGY**

Of the

COMMITTEE ON HOMELAND SECURITY

United States House of Representatives

September 16, 2025

Good afternoon, Chairman Strong, Ranking Member Kennedy, and members of the Subcommittee. Thank you for the opportunity to talk with you about threats to agriculture.

I am Marty Vanier, DVM, and I am the Director of the National Agricultural Biosecurity Center at Kansas State University, and the Associate Director of the Biosecurity Research Institute at Kansas State University. With a strong background in agriculture and 23 years of experience in animal disease emergency response, I am pleased to be here.

Agroterrorism has a long history. From ancient wars to more recent times agricultural agents have been used to damage food supplies, spread disease to humans, animals and plants, disrupt economies or governments, or create fear to effect political change.

In 1952 members of the Mau Mau nationalist movement in Kenya poisoned 33 cattle at a British mission station using African milk bush. In the 1980s Iraq developed and tested wheat cover smut to attack Iranian wheat crops.

(<https://biosecurity.fas.org/education/dualuse-agriculture/1.-agroterrorism-and-foodsafety/biowarfare-against-agriculture.html>)

In 1984, the Rajneeshee cult in Oregon contaminated a restaurant salad bar for the purpose of affecting a local election by sickening voters prior to election day. And, in 2001, letters containing Anthrax spores were sent to members of Congress and the media. Five human deaths resulted.

(<https://domesticpreparedness.com/articles/agroterrorism-a-persistent-but-overlooked-threat>)

Economic disaster is the generally intended effect of agroterrorism attacks, though degradation of military personnel and supplies may also be a goal. Either goal would also have the parallel effect of creating fear and a lack of trust in the food supply chain and the government's ability to protect the safety of the American food supply.

There is a significant amount of data to quantify the cost of an attack on the U.S. food supply. USDA data from 2023 reports that food, agriculture and related industries contributed over \$1.5 trillion (5.5%) to U.S. gross domestic product and 10.4% of total U.S. employment. (USDA ERS 2023). In 2007 Kansas State University researchers Dr. Dustin Pendell and Dr. Ted Schroeder ran three Foot and Mouth Disease (FMD) scenarios focusing on southwest Kansas and found the following state-wide costs: small cow-calf operation--\$36M; medium-sized feedlot (<20K head) --\$199M; 5 large feedlots (>40K head) --\$945M. (Schroeder and Pendell, 2007 USDA/ERS)

What must be remembered is the complexity of the U.S. agricultural enterprise, so the actual cost of any given event could be much higher. Further, the interconnectedness of the production of food crops and animals will have wide-reaching impacts. Think trucking, ag banking, fuel and fertilizer, equipment manufacturing, sales and repairs, feedstuffs, medications, harvest activities, employment, and all of the economic multiplier effects on rural communities.

While my experience is centered on animal disease response, I do want to mention two other categories of threat. The first is the cybersecurity threat to information and operating systems and the second is the threat of loss of intellectual property.

Cybersecurity threats can come in many forms, but three important examples are: the threat to precision ag; mis-and dis-information; the threat to control systems.

Precision agriculture has and will continue to revolutionize crop production by increasing crop yields, reducing the environmental impact of production methods and increasing sustainability. This is done through linking information on soil types, soil condition, weather, the target crop, terrain, pests, crop disease, and other parameters. In the livestock world it is used to measure feed consumption, water consumption, movement, body temperature, etc. The programs that collect data and perform data analysis operate through Bluetooth and/or Wi-Fi systems and the internet. One can imagine the impacts on data and its analysis should the system be breached and data is deleted, corrupted, or changed. This could lead to incorrect decision-making regarding planting, harvesting, soil amendments or medical treatment.

Many crop-planting and livestock production and marketing decisions are made based on information reported by USDA or private marketing research firms. The impact on the financial markets of mis- or dis-information could be catastrophic. In 2018, the Kansas Intelligence Fusion Center evaluated 17 potential computer network attack (CNA) scenarios and found a social media-based outbreak hoax would be the most likely method of a CNA against Agriculture. On May 27th of this year a false report of a case of New World Screwworm in Missouri was published on a Missouri radio station's website. Although the story was only online for five minutes, it impacted the national cattle market futures anywhere from \$250K to \$500K.

Much like the threat to precision agriculture, the threat to the control systems in agricultural harvest and processing is high. I'm referring to the systems that, for example, control food and milk pasteurization processes, ingredient blending for bakery products, heat treatments for ready-to-eat products and others.

Research security has been a concern for some time. You are aware of the talent recruitment programs supported by our adversaries and the multiple examples of theft of intellectual property by scientists, graduate students, visiting business people and foreign nations. Particularly for the academic community there will always be a

philosophical conundrum. The purpose of academic research is to discover and share new knowledge. This becomes difficult to balance with the need to protect the intellectual property of academic researchers whose projects are largely funded with taxpayer dollars.

While this hearing's topic is "Agroterrorism" it is important to note that any introduction of a high-consequence animal or crop disease will require the same kind of response, and the same consequences, whether the introduction is nefarious, accidental or natural. As we have seen most recently our major disease outbreaks have been from the natural movement of disease vectors such as migratory birds and feral swine. Veterinary defense plays a pivotal role – rapid diagnosis, vaccines stockpiles, and disease detection networks are essential. Despite valiant efforts, gaps remain at both the state and federal levels.

There are three steps to successful response of a high-consequence disease:

- 1) identify it;
- 2) find it, i.e. where is it located or how widespread is it;
- 3) control or eliminate it.

For clarity's sake most of my examples will use animal diseases and will refer to them as 'foreign animal diseases' (FADs).

Step 1 necessitates rapid and accurate diagnostics. This is critical from both the agricultural enterprise perspective and from national security. The laboratories and personnel must be operational 24/7/365. It also requires field veterinarians, whether Federal, state, or private, be trained to recognize the clinical signs of high-consequence foreign animal diseases. Are there disease look-alikes? Yes, and that is why rapid diagnostics are so important. The size of a response is so large that you do not want to expend resources unnecessarily in the face of a disease look-alike. The sooner you know what you are dealing with the sooner you can start the response.

Step 2 means finding out where the outbreak is or isn't. Once again this helps determine the size of the initial response. Generally, once the initial location is determined state animal health officials will institute a 'stop movement' action to reduce or prevent the continuing spread of the disease. State, local, and sometimes Federal assets are mobilized to control the movement of animals and animal related materials.

Step 3 institutes the action plan to control or eliminate the disease. This step is dependent on the disease, the animal(s) it affects, whether it is zoonotic, how it is transmitted, and the control method needed to contain the outbreak. Unfortunately, many FADs are only eliminated by euthanasia of the animals. Euthanasia brings a whole host of issues to be considered and dealt with: animal welfare, ethical, environmental, logistical, financial, responder safety, domestic and foreign trade.

There are not enough people working in the animal disease world to manage an outbreak of a FAD, so traditional first responders will be necessary to assist. While traditional first responders in rural areas will be very familiar with agricultural practices, they are generally not familiar with FAD response. Similarly, the agricultural community has little to no familiarity with the response community's Incident Command System, which is the standard format for organizing a non-agricultural response. Much of the work that my program, the National Agricultural Biosecurity Center (NABC), does is bring together traditional and agricultural emergency managers and first responders to understand each other's processes, procedures, and language for the purpose of joint planning, training, and response.

NABC did a survey in 2023 in conjunction with Health, Food, and Agriculture Resilience program at DHS to understand the level of preparedness of county emergency management agencies across the country. One hundred and fifty-five counties from 31 states were surveyed through two rounds. The first survey demonstrated that county agencies did understand the importance of food and agriculture writ large and incorporated some level of planning in their emergency operations plans. However, the results also pointed out that counties were looking for more state and Federal guidance, more training specifically for food and agriculture incidents, better understanding of planning for food and agriculture events, and better access to subject matter experts.

The second survey to the same respondents explored more deeply the capabilities of the county agency to respond. Nearly half of the agencies have fewer than 5 employees and are concerned that staffing is not adequate to participate in a response. Nearly half were not briefed on plans developed by lead agencies for food and agriculture response. They also felt they had little communication with partner agencies that would be part of a food or agriculture response.

Much like traditional emergency management and response the agricultural community needs to plan and train for addressing an FAD outbreak. For the last 10 years, the State of Kansas has hosted a functional Foot and Mouth Disease exercise to explore and train various levels of difficulty in its extensive FMD response plan. Depending on exercise objectives, it may engage with several counties and/or USDA FAD regulatory officials. In a situation where animals will likely be quarantined on farms and ranches, plans need to be made to feed, water and care for the animals. Dairy cows need to be milked, pigs need to be moved up to the next phase of production, eggs need to be collected all the while animal health officials need to understand and determine whether or not the animal products are safe to be moved or enter commerce. If movement is not allowed what is to be done with the products? Will farm workers and farm machinery and vehicles be allowed to move on or off the farm? All these questions and hundreds more must be addressed in a response plan. Many of these questions will require some very

creative answers. Unfortunately, some of these questions do not have any good answers.

Another important aspect of disease response and overall threat analysis is information sharing. This is information sharing at all levels-- open source, Controlled Unclassified Information, and classified information. At this point I am not addressing public information, though that is quite important, I am addressing information sharing between government officials, animal health officials, responders, and stakeholders.

In the event of a true nefarious event law enforcement will naturally be involved. The FBI particularly has a protocol for working with animal health responders and local law enforcement to handle the criminal investigative portion of the response.

There are a variety of open-source sharing methods through commodity and livestock organizations, the general farm media, and regional disease response organizations. These regional organizations, such as Multi-State Partnership for Security in Agriculture (MSP), Southern Agriculture & Animal Disaster Response (SAADRA), New England States Animal Agricultural Security Alliance (NESAASA), and National Alliance of State Animal and Agricultural Emergency Programs (NASAAEP) are made up of state animal health officials, state emergency managers, commodity organization members, land-grant universities and others, who share information between states. The information might be about disease response activity or creative solutions to difficult planning or response questions. Some of these regional organizations meet regularly virtually and usually annually in person. They also design and run their own exercises. These joint exercises not only provide planning and training for the member states but also encourage collaboration and cooperation between member states.

There is a role for classified information sharing. Clearly, we need to “see over the horizon” to identify and understand risks and threats around the world. Classified information by its nature means that distribution is very limited. The State of Kansas has made great strides in analyzing classified information and using that information to protect the state. The Bipartisan Commission on Biodefense’s *National Blueprint for Biodefense* recommends enabling state fusion centers to address the biothreat. The Kansas Intelligence Fusion Center has addressed biological and agricultural threats at the classified level since 2012; however, no other state fusion centers currently have this capability.

Much like “all politics are local”, “all agricultural disasters are local”. Local and state responders will be the first ones on scene and will be responsible for assessing the scope of the outbreak, beginning control activities and managing the response to its conclusion. This does not mean there is no role for the Federal government. In a word the role is resources. The resources necessary take many forms. Most of my remarks today were concerned responding to a disease outbreak. Confirmation of a FAD in the

United States is done by the USDA Foreign Animal Disease Diagnostic Laboratory on Plum Island, and soon to be moved to the National Bio and Agro-Defense Facility in Manhattan, Kansas. It is critical that this function remain robust and well-resourced. Without these confirmatory diagnostics the livestock community is blind in the regulatory sense, and the United States cannot export susceptible livestock or their products. USDA has the regulatory responsibility for plant and livestock disease control. It assists states not only with diagnostic testing, but also with understanding and achieving Federal FAD policy goals.

That being said, there is indeed a role for the Department of Homeland Security. Prior to an outbreak the Department can use its network through FEMA to provide and distribute training and exercise materials to state and local responders. While there are some materials in the FEMA Catalog they are dated. Working through the catalog is important as FEMA training is often the only officially recognized training for first responders. The Department can strengthen ties to the agricultural community through state Departments of Agriculture and the Cooperative Extension Service to assist with and distribute training to on-the-ground responders and emergency management personnel.

The Department of Homeland Security's Science and Technology Directorate must continue its work in threat assessment and technology development to provide products that can be used on the ground and ensure that state animal health officials are included in those efforts. S&T can assist with deep analysis of traffic patterns, marketing patterns and distribution systems to help prevent massive disruption of food supply chains.

Mr. Chairman and members of the Subcommittee, I thank you for the opportunity to appear before you today and I welcome any questions you may have.

**Hearing of the Committee on Homeland Security
Subcommittee on Emergency Management and Technology
United States House of Representatives**

**“Surveying the Threat of Agroterrorism:
Perspectives on Food, Agriculture, and Veterinary Defense”**

September 16, 2025

Statement for the Record

**Asha M. George, DrPH
Executive Director, Bipartisan Commission on Biodefense**

Summary

Since its inception in 2014, the Commission has recognized the importance of safeguarding food and agriculture from biological threats. Despite how critical the food and agriculture sector is to the Nation, federal attention to, and investment in, biodefense activities that support animal and plant health have historically lagged behind those for human health. The uneven response to last year’s highly pathogenic avian influenza outbreak demonstrates that we are not as prepared as we need to be for future threats. Not all states are taking the same approach to responding to animal disease threats. The federal government lacks sufficient coordination and speed in addressing a fast-moving novel threat. Agricultural producers need to be engaged as equal partners and educated about the risks posed by newly emerging or newly transmissible diseases. Medical countermeasure development, approval, and stockpiling are not where they need to be.

In 2015, the Commission released our foundational report, *A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts*, containing 33 recommendations and 87 associated action items for national biodefense. That report included a recommendation pertaining to taking a One Health approach to national biodefense that better coordinates and integrates human and animal health. In subsequent years, the Commission released two reports that directly address food and agriculture. The 2017 report, *Defense of Animal Agriculture* contains recommendations for investigations of animal pathogen events, development of animal medical countermeasures, information sharing, and coordination of federal biodefense activities impacting animal health. In the 2022 report, *Boots on the Ground: Land-Grant Universities in the Fight Against Threats to Food and Agriculture*, the Commission provides recommendations for strengthening federal support for state, local, tribal, and territorial (SLTT) activities to protect food and agriculture from biological threats, and explores ways to engage the land-grant universities in augmenting national biosurveillance, research and development, and outreach and education efforts. The Commission’s 2024 report, *The National Blueprint for Biodefense: Immediate Action Needed to Defend Against Biological Threats*, builds on this previous work, and addresses further recommendations for plant health surveillance, research, and development.

Statement

Chairman Strong, Ranking Member Kennedy, and other Members of the Committee, thank you for your invitation to provide the perspective of the Bipartisan Commission on Biodefense during today's hearing, "Surveying the Threat of Agroterrorism: Perspectives on Food, Agriculture, and Veterinary Defense." I am honored to talk with you today about biological threats to food and agriculture, federal agro-biodefense programs executed by the Department of Homeland Security, and the state of our national biodefense. My name is Asha M. George, DrPH, and I am the Executive Director of the Bipartisan Commission on Biodefense.

The Commission is co-chaired by former Secretary of Homeland Security, Governor Tom Ridge and former Secretary of Health and Human Services, and Representative Donna Shalala; with former Senate Majority Leader Tom Daschle; former Representative Fred Upton; former Representative Anna Eshoo; former Representative Susan Brooks (who served on the Committee on Homeland Security); former Representative Jim Greenwood; former Under Secretary of Homeland Security for Intelligence and Analysis Ken Wainstein (who also served as Homeland Security Advisor to President George W. Bush); and former Commissioner of the Food and Drug Administration Peggy Hamburg serving as Commissioners. The Commissioners and I have addressed homeland, national, and public health security in various capacities for decades. Although we have left our previous positions, we remain committed to public service and the public health, safety, and security of our Nation.

In 2015, the Commission released our foundational report, *A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts*, containing 33 recommendations and 87 associated action items for eliminating what we identified as serious capability gaps in national biodefense. In the decade since we released that report, Congress, and the Administrations have addressed many of our recommendations, including the creation of a National Biodefense Strategy (Recommendation 3). We appreciate the original iteration of the Strategy released by the Trump Administration in 2018 and the more recent October 2022 refresh released by the Biden Administration. We eagerly await the Strategy's comprehensive implementation by the federal government.

However, though progress has been made over the years, the Nation remains critically at risk of a biological event, whether intentional, accidental, or natural. Accordingly, the Commission decided last year to release an update to our original *Blueprint*. Titled, *The National Blueprint for Biodefense: Immediate Action Needed to Defend Against Biological Threats*, this 2024 report incorporates the lessons learned by the Commission during the course of its work over the past eleven years. The experiences of the Nation's response to COVID-19, mpox, Ebola, highly pathogenic avian influenza, and numerous other pathogens that have emerged during that time informed the report's 36 recommendations and 185 action items.

Other Commission recommendations have been taken up in a variety of legislative vehicles, including the Farm Bill, Intelligence Authorization Act, and Pandemic and All-Hazards Preparedness and Advancing Innovation Act. Most recently, the Servicemember Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025 (Public Law 118-159) required the Department of Defense to conduct Biodefense Posture Reviews in 2026 and 2029, building off of the progress made in the Department's first Review in 2023. The Act also elevated the Assistant Secretary of Defense for Nuclear Deterrence, Chemical, and Biological

Defense Policy and Programs to a position that straddles the Offices of the Under Secretary of Policy and Under Secretary of Acquisition and Sustainment, to better align weapons of mass destruction activities within those entities. Both of these ideas came from recommendations in the Commission's 2024 *National Blueprint for Biodefense*. Last year the Commission also issued the *Proposed Congressional Hearings on the Recommendations of the 2024 National Blueprint for Biodefense* to assist in future congressional oversight of the federal biodefense enterprise.

Though human health rightfully garners a tremendous amount of attention with regard to biodefense, animal health, plant health, and food safety are equally critical elements of the Nation's biodefense enterprise. According to the U.S. Department of Agriculture, agriculture, food, and related industries contributed approximately \$1.537 trillion to US GDP in 2023. A single animal or plant pathogen – introduced intentionally or spread naturally – could have devastating consequences for multiple industries in this critical infrastructure sector. We have all witnessed how highly pathogenic avian influenza can devastate not just poultry producers but also dairy farms, raising the price of eggs and dairy products for all consumers. And those are the effects of a virus we are relatively familiar with and for which we have developed or are developing countermeasures. Other threats loom on the horizon and could inflict even greater damage on American farming and associated industries. For example, estimates suggest that the arrival of African Swine Fever in the United States could cause \$15 billion in losses for the domestic pork industry in just the first two years after introduction alone, and potentially as much as \$50 billion in the long term. Wheat blast could have catastrophic consequences for the Nation's wheat supply. Both of these diseases, and many others, are already present in the Western Hemisphere, increasing the chances that the United States will eventually have to determine how best to respond to, recover from, and mitigate their impacts.

Since its inception in 2014, the Commission has recognized the importance of safeguarding food and agriculture from biological threats. In our original 2015 *National Blueprint for Biodefense*, our Commission discussed the need to: (1) better integrate federal human, animal, and environmental health activities into a One Health approach; and (2) include the Department of Agriculture in the development process for any National Biodefense Strategy. In the years since that report's release, we continue to draw attention to the threats to this critical infrastructure sector, and the capability gaps that leave us unprepared for future biological events affecting food and agriculture. That activity has included public meetings held at Kansas State University (in 2017) and Colorado State University (in 2019) to discuss these threats; federal, state and local activities to address these threats; and how we can better leverage land-grant universities to assist the government in protecting food and agriculture. Based on the information we gathered at those meetings, our independent research, and further discussions with subject matter experts, we have to date produced two reports dedicated to strengthening the federal government's food and agriculture defense activities.

The 2017 report, *Defense of Animal Agriculture*, contains recommendations for the investigation of events involving animal pathogens, development of animal medical countermeasures, information sharing, and coordination of federal biodefense activities impacting animal health. In the 2022 report, *Boots on the Ground: Land-Grant Universities in the Fight Against Threats to Food and Agriculture*, the Commission provides recommendations to strengthen federal support for state, local, tribal, and territorial (SLTT) activities to protect food and agriculture from biological threats, and explores ways to engage the land-grant universities in using their

capabilities to augment national biosurveillance, research and development, and outreach and education efforts with regard to food and agriculture.

Despite how critical the Food and Agriculture Critical Infrastructure Sector is to the Nation, federal attention to, and investment in, biodefense activities that support animal and plant health have historically lagged behind those for human health. In 2023, the Office of Management and Budget produced the first annual crosscut analysis of federal biodefense spending, as required by the William M. (Mac) Thornberry Defense Authorization Act for Fiscal Year 2021 (Public Law 116-283), and in accordance with Recommendation 4 from our 2015 *National Blueprint for Biodefense* for the requirement of such a crosscut. The crosscut revealed that the Department of Agriculture spent \$700 million on biodefense activities in Fiscal Year 2022, compared to \$8.4 billion spent by the Department of Health and Human Services. The National Veterinary Stockpile, which is designed to store critical veterinary supplies, equipment, animal vaccines, and response support services for SLTT governments, received \$6.5 million in appropriations in Fiscal Year 2025, compared to \$980 million for the Strategic National Stockpile. The National Animal Health Laboratory Network (NAHLN) has been historically underfunded through annual appropriations relative to their mission. The National Plant Diagnostic Network receives even less funding support for the critical work of tracking the numerous plant pathogens that are circulating within the United States at any given time. In lieu of dedicated appropriations for animal and plant health response, the Department of Agriculture relies on its borrowing authority through the Commodity Credit Corporation for any emergency funding it may require to combat animal and plant health disease outbreaks, including highly pathogenic avian influenza.

The Agriculture Improvement Act of 2018 (Public Law 115-334, also known as the 2018 Farm Bill) made some progress by increasing funding for the NAHLN temporarily, establishing a National Animal Disease Preparedness and Response Program (NADPRP), and creating the National Animal Vaccine and Veterinary Countermeasures Bank (NAVVCB). The Commission recommended the creation of both the NADPRP and the NAVVCB in our 2017 report *Defense of Animal Agriculture*. The One Big Beautiful Bill Act (Public Law 119-21) signed into law by President Trump a few months ago contained a provision that directed an additional \$233 million from the Commodity Credit Corporation to support these activities through Fiscal Year 2030.

Deficiencies remain. The uneven response to last year's highly pathogenic avian influenza epidemic demonstrates that we are not as prepared as we need to be for future threats. Not all states are taking the same approach to responding to disease threats to food and agriculture. The federal government lacks sufficient coordination and speed in addressing fast-moving novel threats. Agricultural producers need to be engaged as equal partners and educated about the risks posed by newly emerging and newly transmissible diseases. Medical countermeasure development, approval, and stockpiling are not where it needs to be.

Given the jurisdiction of the Committee on Homeland Security, I would be remiss if I did not also discuss the Department of Homeland Security's biodefense activities and where they specifically align with animal and plant health defense. All but one of the operational components within the Department engage in activities that contribute to national biodefense generally:

- Agricultural inspectors within U.S. Customs and Border Protection (CBP) work to prevent disease carrying pests from crossing our borders.

- CBP and the Transportation Security Administration screen passengers at ports-of-entry when diseases (including those that could affect food and agriculture) move through the global transit system.
- FEMA bears responsibility for providing logistical and emergency management expertise to support national response activities, which is in no small part why President Donald Trump asked them to step in to support the national response to COVID-19 in March 2020. The agency also oversees direct assistance programs to non-federal governments through the State Homeland Security Grant Program.
- The U.S. Coast Guard advises vessel owners and operators to report suspected crewmembers and passengers sick with diseases of concern to the Centers for Disease Control and Prevention as part of its longstanding responsibility to implement quarantine measures.
- The U.S. Secret Service maintains discreet protective measures to defend the White House from biological attacks and manages the biological risk to National Special Security Events.
- U.S. Immigration and Customs Enforcement works to combat counterfeit pharmaceuticals and theft of intellectual property rights (such as for newly developed medical countermeasures) and plays a critical role in export enforcement.
- The Cybersecurity and Infrastructure Security Agency previously addressed biodefense of critical infrastructure during the H1N1 influenza pandemic and issued guidance to the sectors early in the COVID-19 pandemic.
- The Science and Technology Directorate supports biological attribution and characterization activities through the National Biodefense Analysis and Countermeasures Center (NBACC).

In 2017, the Department combined some of its existing chemical, biological, nuclear, and radiological functions into an Office of Countering Weapons of Mass Destruction (CWMD). Congress subsequently authorized the Office a year later and assigned the Assistant Secretary for CWMD statutory responsibilities for coordinating Department of Homeland Security activities for defending food, agriculture, and veterinary systems, as enumerated in the Securing Our Agriculture and Food Act (Public Law 115-43). Though Department officials envisioned CWMD as a central hub for weapons of mass destruction (WMD) policy and activities within the Department, authorizing legislation did not reflect that mission and the Department did not utilize it in that way. CWMD ultimately turned out to be little more than the sum of its parts, focusing on legacy programs that existed before the Office's creation with some additional elements brought over from other parts of the Department of Homeland Security (e.g., WMD intelligence and analysis, removed from the Office of Intelligence and Analysis).

Perhaps in recognition of this reality, the Department of Homeland Security moved the position of Chief Medical Officer from CWMD to a newly-created Office of Health Security, which consolidated departmental health care, occupational health, and public health responsibilities. The Department also moved CWMD food and agriculture defense responsibilities to this new Office. The Office of Health Security has been involved in government-wide discussions regarding the protection of food and agriculture, but this office neither coordinates the Department's activities in this space, nor do they possess the personnel and resources to effectively execute such a mission.

The biodefense responsibilities of CWMD focus largely on two longstanding programs addressing biosurveillance and biological detection:

- The National Biosurveillance Integration Center (NBIC), which was intended to collect and analyze biosurveillance data from other federal departments and agencies to enable early warning and shared situational awareness of biological events, including among animal populations. However, NBIC lacks the authorities and resources necessary to fully achieve this goal. Congress did not mandate that other federal departments and agencies provide this data to the Department of Homeland Security. The Center has been left with publicly available sources of information to inform their products, limiting its effectiveness. To illustrate this problem, the Department of Agriculture does not currently share the data it receives from states and the agricultural industry with the Department of Homeland Security.
- The BioWatch biological detection program has been in service for 22 years, dating back to its initial deployment by the George W. Bush Administration to provide a modicum of biological detection capability against potential attacks in advance of the 2004 presidential election. Located in about 35 metropolitan jurisdictions, the system collects air samples in outdoor public spaces that must then be manually gathered at least once every 24 hours. Public health laboratories then test the samples for the presence of five biological agents. However, the equipment barely functions, and the system (including testing) takes too long to produce results. Hospital admissions would indicate a biological event long before the system definitively reported a positive test result. The system is operating with the same technology from its 2003 deployment.

After 7 years, CWMD in 2024 finally terminated BD21 (or Biodefense for the 21st Century), its troubled replacement program to identify, acquire, procure, and deploy replacement technology for the BioWatch program. Though CWMD continues to engage with stakeholders and industry to determine how best to improve upon the BioWatch program, they are no closer to a more capable national biological detection system than when I last testified before this very subcommittee six years ago. The Department of Homeland Security continues to spend more than \$80 million in taxpayer money each year for the existing, flawed BioWatch program.

Recommendation 31 from our *National Blueprint for Biodefense* called for the development of an advanced environmental detection system to replace BioWatch. The Commission further examined the program and potential solutions in our 2021 report *Saving Sisyphus: Advanced Biodetection for the 21st Century*. Understanding the political reality that Congress will not terminate BioWatch without a replacement in place, *Saving Sisyphus* presents short and long-term action plans to both deploy better technology right now and to create a technology development process to regularly refresh both the biological detection mission and technology. A research and development strategy that regularly reassesses the mission of the system and the needs of participating jurisdictions is also essential.

President Trump's Fiscal Year 2026 budget proposes eliminating CWMD and dispersing its programs to other elements within the Department. This is of little surprise to the Commission. We believe that the ability of the Department to counter weapons of mass destruction would not be meaningfully impacted by the closure of Office and the transfer of those capabilities to other

components. However, the end of CWMD would not also mean the end of the Department's mission to address chemical, biological, nuclear, or radiological threats to the homeland, nor should Congress or the Administration redirect WMD funding for non-WMD purposes. Biodefense (including agro-biodefense) should remain a priority for the Department of Homeland Security. Should Congress choose to accede to the Administration's request to dissolve CWMD and redistribute its capabilities, enacting legislation should also establish regular review of Department of Homeland Security biodefense activities. Congress should require the Department of Homeland Security to compile and submit an annual report on its biodefense policies, programs, and expenditures as they align with the National Biodefense Strategy. As the Department of Homeland Security should already be providing much of this information in support of the congressionally-mandated biodefense crosscut, it should be easy for the Department to provide this information to Congress as well.

Lastly, we cannot ignore the broader state of biodefense when discussing the defense of food and agriculture. Biological threats continue to increase. Our enemies can see for themselves the disruption that highly pathogenic avian influenza has caused within the United States, as well as the damage done by other disease outbreaks throughout the world. Technology has made it easier to weaponize biological agents. Diseases are spreading more frequently and easily within and among countries, with increased likelihood of spillovers from one animal population to another, from animals to humans, and from humans to animals. Measles and other diseases are reemerging in the United States, including most recently tuberculosis, mumps, pertussis, and rubella, increasing the disease burden on our healthcare system and leaving us more vulnerable to the impacts of animal disease transmission to human populations.

Defending the Nation against biological threats that affect national security is not, and has never been, a top priority for any of the 15 Cabinet departments, 9 independent agencies, and 1 independent institution (the Smithsonian) that possess responsibilities for biodefense. Biodefense has always been disgracefully, woefully, and incomprehensively underfunded. We cannot continue to rely forever on emergency supplemental appropriations or withdrawals from the Commodity Credit Corporation to make up for weak defense against biological threats. As a Nation, we have never been adequately prepared for the biological events that have occurred, and we know that, because we never do seem to avoid the deaths of hundreds, thousands, and sometimes millions when those events occur. The implemented and proposed cuts to biodefense programs do not exist in a vacuum.

Biodefense is in crisis and has long been in crisis.

Our Commission has advocated in the past for reevaluation of federal biodefense programs and policies, of exploring opportunities to find efficiencies in how the government engages in activities to prevent, deter, prepare for, detect, respond to, attribute, recover from, and mitigate biological events. And we have suggested that certain programs – such as BioWatch – need to be replaced or eliminated. Such reductions or realignments should be made thoughtfully, with an eye towards how we as a Nation can continue to meet the goals of the National Biodefense Strategy President Trump issued in 2018. The requirements are still the requirements, regardless of available resources and personnel, and we need to be able to meet those requirements. The Nation still requires biosurveillance. The Nation still requires diagnostics, vaccines, therapeutics, and other medical countermeasures. And the Nation still requires a well-equipped and well-

staffed public health and animal health departments. The Administration should strongly consider taking some of the funds they are saving from ongoing cuts and reinvesting those funds in programs that actually work. The Administration also needs to make future cuts with current and previous cuts in mind.

This concludes my written remarks. The Bipartisan Commission on Biodefense appreciates the Subcommittee's interest in biological threats affecting food and agriculture, and the Department of Homeland Security's contributions to national biodefense. I would also like to take this opportunity to thank all of the organizations that support our efforts financially and otherwise. With this testimony, I am submitting three of the Commission's reports (*The National Blueprint for Biodefense*, *Defense of Animal Agriculture*, and *Boots on the Ground*), and the Commission's first annual State of Biodefense Address. Thank you again for inviting me to testify today. I look forward to answering your questions and working with you to defend the Nation against biological threats.

September 16, 2025
Chairman Dale Strong AL-05
Emergency Management and Technology Subcommittee
Homeland Security Committee
United States House of Representatives

ACKNOWLEDGEMENTS

Thank you, Chairman Strong, Ranking Member Kennedy, [if present: Chairman Garbarino, Ranking Member Thompson] and the honorable members of the Committee to participate in today's hearing on this critical national security threat, Agroterrorism.

INTRODUCTION

I am Dr. Daniel K. Wims, and I serve as the 12th President of Alabama Agricultural and Mechanical University, an 1890 land-grant university in Huntsville, Alabama.

For 16 years prior to becoming president, I served as Provost and Vice President of Academic Affairs, Research, and Professor of Agricultural Sciences at 1890 land-grant universities in Alabama and Georgia. More broadly, over the past 30 years, I have served in varying capacities at

land grant universities such as Alcorn State University (MS), Southern University (LA), South Carolina State University (SC), Fort Valley State University (GA) and Florida A&M University (FL).

AGROTERRORISM

I am grateful to be here today to discuss the critical topic of the threat of Agroterrorism to the United States, particularly the food and agriculture critical infrastructure sector. In 2023, the Bureau of Economic Analysis, agriculture, food, and related industries contributed roughly \$1.537 trillion to the U.S. gross domestic product (GDP), a 5.5-percent share.

The output of America's farms contributed \$222.3 billion of this sum — about 0.8 percent of U.S. GDP. With nearly 2 million farms in the United States, agriculture is essential to our nation considered and one of the most important pillars of America. Americans must eat safe and high-quality food.

Today, threats to American agriculture not only expose us to risks of food shortages, foreign dependencies, and higher prices but they also strike at one of the most essential pillars of America. Those threats to American agriculture will lead to **Agroterrorism**. Defending access to American abundance and preserving the American experiment is the essence of Agrosecurity, and it is why **Farm Security is National Security**.

Twenty-three years ago, the Chairman of the Joint Economic Committee addressed Congress stating that an agroterrorism incident could immediately cost in the “range of \$25 billion to \$60 billion.” Given the inflation rate, this could cost as much as \$106 billion today.

In 2001, Foot Mouth Disease in the United Kingdom affected 9,000 farms and required the destruction of more than 4,000,000 animals. Researchers believe that a similar outbreak in the United States would cost taxpayers up to \$60 billion.

AAMU AGROTERRORISM ROLE

As an 1890 and-grant University, Alabama A&M has robust agricultural research capabilities. Alabama A&M researchers have been working actively on technical solutions and research projects in Agrosecurity, Food Safety and Quality, Diagnostic and Detection of Foodborne Pathogens such as E. coli, Salmonella and Listeria, and Toxicology.

Additionally, the Alabama Cooperative Extension System (ACES) is the primary outreach organization for the land-grant mission of Alabama A&M University and Auburn University. Auburn University President, Dr. Christopher Roberts and I are committed to research and outreach programs collaborations.

ACES agents play a pivotal role in educating farmers and stakeholders about Agroterrorism and Agrosecurity through different agriculture programs such as Food Safety and Security, Integrated Pest Management, Soil Health and Water Quality, Agronomy, Animal and Plant Health, and the Food Safety Modernization Act (FSMA). ACES has assigned agents to work with FEMA agents and get trained by FEMA agents. In times of crises and emergencies, ACES agents are ready to work and coordinate with FEMA agents.

With the development of the novel Rapid Detection System and Remote Sensing for Chemical and Biological Threats by Alabama A&M scientists, I can attest that our institution is well positioned to contribute to protecting our nation from Agroterrorism and provide technologies to counter wide range of threats to our farmlands, crops, animal and plants health, food processing facilities, and food supplies.

An additional threat is the increase in foreign investment in our nation's agricultural land from countries such as China. This too cannot be ignored. In fact, legislation introduced by you, Mr. Chairman, the ***Protecting America's Agricultural Land from Foreign Harm Act***, is a step in the right direction in safeguarding these lands from foreign adversaries.

CLOSING

To close, I'd like to reinforce the role Alabama A&M, as an 1890 land-grant institution, can play in keeping our food safe. It is evident from the threats

that Alabama A&M is aligned with the ***National Farm Security Action plan*** introduced by USDA in July 2025. Alabama A&M scientists stand ready to partner with industry, the federal government, and other academic institutions to ensure our homegrown food supply remains safe and secure for consumption for all Americans.

Farm Security is National Security and I thank you for bringing attention to this important matter. As President of Alabama A&M University, I look forward to working with you in the future.