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“Safeguarding American Agriculture in a Globalized World”

Statement for the Record

Chairman Roberts, Ranking Member Stabenow, and Members of the Committee: Thank you very much for inviting me here to provide my perspective on safeguarding animal agriculture, which I offer you on behalf of the bipartisan Blue Ribbon Study Panel on Biodefense, an initiative I co-chair with former Governor Tom Ridge. We spent the last year evaluating challenges in agrodefense and developing recommendations, and I am glad to bring those to you today.

I would like to thank all of the Study Panel Members whose input into the report informed this testimony: Governor Ridge, former Secretary of Health and Human Services Donna Shalala, former Representative Jim Greenwood, former Homeland Security Advisor Ken Wainstein, and most especially former Senate Majority Leader Tom Daschle, who led the Panel to take up this important issue. Senator Daschle trekked out to Manhattan, Kansas on a cold January day earlier this year to convene many of the brightest minds on this topic at Kansas State University. That visit informed much of the Panel’s work that followed.

Animal agriculture is central to the health and well-being of the American people and the U.S. economy. Our Panel wanted to better understand the continued risks at the nexus between animal agriculture and national security. We looked at both direct threats to agriculture and indirect threats to human health. Zoonoses – those pathogens that can infect both animals and people – comprise the vast majority of emerging infectious disease threats faced by humans. They are also the pathogens our intelligence community is most concerned about terrorists acquiring. The increasing rate of emerging and reemerging animal diseases, along with threats and attempts by those with the intent to attack food and agriculture, mean there is an urgent need to reduce the biological risk to America’s food and agricultural sector.

The federal government's proud history in protecting American agriculture goes back a long way. The Department of Agriculture (USDA) was established in 1862 in the days preceding post-industrial scientific advances we now take for granted. In 1884, it led a successful effort to eradicate contagious bovine pleuropneumonia, in just eight years. It also worked to understand, control, and eradicate Texas cattle fever, a major pest of early American livestock operations. Through these and many other efforts, the USDA protected American farmers' livelihood, their animals, and the domestic and international commerce that depended on them.

These roots are important. They demonstrate the government's proper place in the protection of livestock, as well as human and economic health. They also remind us that, given the complex layering of public and private systems today, agricultural protection is a complicated project that requires significant cross-sectoral coordination and a commitment to public-private partnerships. Like many critical infrastructure sectors, agriculture is primarily privately owned. In 2015, it contributed to 5.5% of our gross domestic product.

A century-and-a-half after the early trials and successes in livestock disease management, the December 2014 emergence of a highly pathogenic strain of avian influenza in the United States resulted in the largest animal health disaster ever experienced on U.S. soil. The total cost to the U.S. economy was estimated as high as \$3.3 billion. Experts are extremely concerned about the potential for a mutated avian influenza virus to race through the human population, a view echoed by the White House Senior Director for Global Health Security and Biothreats, Rear Admiral Tim Ziemer, before the Study Panel just last month.¹

Yet this close biological connection between people, animals, their environments, and the pathogens that can infect them has not always meant close policy connections. Policy approaches to biodefense (see Homeland Security Presidential Directive 10, HSPD -10) and agricultural security (see HSPD-9) have often been described as separated from one another. Despite the enormity of agriculture as a component of our economy, and despite the realistic concern of zoonoses arising, inadequate attention and funding is more severe in the animal and environmental health sectors than in public health. In FY 2017, the agriculture protection function represented a mere 0.76% of the total federal homeland security budget request.²

¹ Comments of Rear Admiral Tim Ziemer before the Blue Ribbon Study Panel on Biodefense, November 2, 2017. Public meeting, "National Biodefense Strategy: Implementation and Implications." Video archive available at <https://www.youtube.com/playlist?list=PLr5tk1Hf6CeNa7H9-UxSX61Re9NuCdmdx>

² Office of Management and Budget. (2017) *Analytical Perspectives: Budget of the U.S. Government, Fiscal Year 2017*. Washington, DC: U.S. Government Printing Office.

Our Panel believes that agricultural defense, while it has unique elements, should not be walled off from other biodefense efforts: agriculture is a critical element of our biological existence and threats to it must be viewed through the same lens as threats to or from other biological entities. In recognition of the critical nexus between human and animal health, we evaluated this matter over the last year, and discuss our detailed findings and recommendations in our 2017 report, *Defense of Animal Agriculture*.

We found both significant achievements and serious gaps in our capacity and capability to defend against major biological events. The key challenges we identified are:

1. **Lack of policy and fiscal ownership.** Agricultural defense is a broad and complex mission space that necessitates the significant involvement of most federal departments and agencies. The reality of the immediate ownership of food and agriculture assets by the private sector, and the sector's significant contribution to territorial, tribal, local, state, and federal economies, necessitates substantial federal collaboration with non-federal stakeholders. White House-level leadership is, therefore, critical to minimize overlap, identify mission gaps, and coordinate effort. Department-level leadership is also necessary. Department of Homeland Security (DHS) investments in the development of the National Bio- and Agrodefense Facility (NBAF), and USDA commitment to funding response activities, demonstrate their acknowledgement of the threat. However, current funding levels in areas such as biosurveillance and medical countermeasures (MCM) are insufficient to address mission needs. Experts have expressed concern to us that the NBAF itself may not receive sufficient operational support once it is open for business. Agrodefense appears to be an orphan, with long-view funding and policy priority finding a home in neither DHS nor USDA.
2. **Insufficient fiscal support for key programs.** Aside from the notable (and expensive) NBAF construction effort, agriculture security is a tiny portion of the federal budget. Indeed, the President's Budget Request for FY 2018 would eliminate agriculture research and development from the DHS budget entirely. Although Congress and the Administration have supported a variety of programs designed to prevent and respond to outbreaks of animal diseases, the level of support has not always been commensurate with the threat or risk. Suboptimal investment in MCM, diagnosis, and integrated biosurveillance means we are less prepared than we ought to be. Further, the worse the outbreak, the less prepared we are for it. Detection and surveillance have been hampered by insufficient focus on rapid pen-side diagnostics, and insufficient investment to develop new wildlife disease detection technologies and validate existing tests. Although improving, federally integrated biosurveillance remains perpetually challenged by

information sharing problems. Some areas of potential risk, particularly with respect to companion and urban animals, are minimally addressed at all.

3. **Insufficient promotion of innovation.** On balance, the status quo is inadequate to protect the food and agriculture sector from a major attack or outbreak. The nation needs new ideas and scientific solutions to drive agrodefense approaches beyond their current limitations. The National Veterinary Stockpile (NVS) has essentially become a minimally-funded vehicle for MCM distribution, rather than an end-use driver for federal identification, procurement, and stockpiling of priority MCM. To meet the requirements of HSPD-9, far greater investments in advanced research and development are also necessary. Focused investment in pen-side, innovative diagnostic technology, and in better laboratory-based technology to enable rapid assessment for state, local, tribal, and territorial animal health officials, will enable earlier decision-making.

Our Blue Ribbon Study Panel on Biodefense developed a series of proposals that, if implemented, would help manage these challenges. I refer the Committee to our full report, *Defense of Animal Agriculture*, for our complete proposed solutions. Here I highlight three areas of focus for the Committee's consideration:

1. **Leadership, management, and budgeting.** High-level leadership is needed to drive federal activity toward a level commensurate with the threat. The first way the White House can exert this leadership is by ensuring that the National Biodefense Strategy meaningfully addresses threats to food and agriculture. The second way is to ensure that detailed agrodefense expenditures are incorporated into a cross-cutting biodefense budget analysis. Congressional oversight would benefit significantly from a detailed budgetary cross-cut that outlines how much each agency is spending toward agrodefense and for what projects, programs, and activities. The Panel has previously stated that, due to myriad departments and agencies involved in biodefense, a far more integrated approach to budgeting their activities is needed. Agrodefense should be part of this reformed approach, which ultimately should take the form of a comprehensive biodefense budget request summary that collates and justifies all individual department and agency requests in the context of the overall national strategy. In their annual requests, departments and agencies should provide outcome-based evidence of program effectiveness in meeting requirements, and propose requirement areas that would benefit from new investment. For major projects, the White House and Congress should require departments and agencies to develop business plans, which should emphasize interagency coordination and public-private partnerships; the National Bio- and Agrodefense Facility should have such a plan.

- 2. The national veterinary medical countermeasure posture.** We can, in part, mitigate the threat to livestock with MCM. Despite gains, the availability of MCM for animals lags far behind what is needed, and does not meet the requirement from HSPD-9 to deploy sufficient high-consequence animal disease MCM within 24 hours. The NVS \$4 million annual budget appears based on historical precedent, rather than present-day risk-informed resource allocation. While the NVS does maintain supplies like personal protective equipment and depopulation equipment, which have been distributed and used successfully in recent outbreaks, from an MCM standpoint it is entirely inadequate. A commitment by Congress to authorize the NVS would send a strong message that the Stockpile is a necessary national asset. Of course, any stockpile is only as strong as its inventory. We echo the evaluations of many experts who have testified here and before other committees that we must establish a foot-and-mouth disease (FMD) antigen bank, one tied to a vaccine usage policy that would rescue the United States in an FMD emergency. We must also ensure that any stockpile is well equipped with diagnostics. The NVS should maintain diagnostic test kits for all diseases for which vaccines are stockpiled, with an emphasis on point-of-use diagnostics.
- 3. The state of animal-based biosurveillance.** Improving capacity for rapid detection of dispersed or circulating biological agents is pivotal. Biosurveillance and biodetection enable prevention. The establishment of a prevention fund for animal health, much as was created by the Food, Conservation and Energy Act of 2008 for plant health, would create a legislative basis for prevention activities. Such a fund could encompass programs like the National Wildlife Disease Surveillance Program, which operates on a shoestring. The Committee should evaluate and determine the full need and funding requirements for a sustained capability to detect, validate, and warn of threats impacting and transmitting through wildlife within the United States. Finite funding may necessitate a risk-based approach, but this is far preferable to a reactionary approach. The National Animal Health Diagnostic Laboratory Network (NAHLN) can help support such an effort. The NAHLN works to detect biological threats to food animals. The Committee should assess whether authorized levels of funding are sufficient to accomplish its mission on a daily basis, and to meet diagnostic surge demand in the event of an outbreak. Finally, although USDA has published an interim rule establishing a National List of Reportable Animal Diseases (NLRAD), it has yet to be finalized. The Committee should consider language expressing the Committee's support for the NLRAD Framework, urging its finalization, and encouraging swift efforts to execute a corresponding reporting regimen.

I also wish to recognize the growing partnership between the agriculture and law enforcement sectors, both locally and at the federal level. This is evidenced, for instance, by the long-term joint development by the USDA, Federal Bureau of Investigation, and Food and Drug Administration of the *Criminal Investigation Handbook for Agroterrorism*, and through a more recent process to update the *Food and Agriculture Incident Annex* in a manner that recognizes that agriculture can be the target of terrorism. We hope to see more of this kind of coordination among federal departments and agencies.

One last element I wish to emphasize is that while animal agriculture is a major consideration for the Committee as it considers the Farm Bill, we cannot attain complete situational awareness or prevention and response capacity if we ignore wildlife (rural and urban) or companion animals. The latter in particular are embedded into our lives and culture, but associated zoonotic disease risk is not well considered. We lack sufficient biosurveillance efforts to detect spillover events, and have not developed guidance for localities on how to manage such an event if it were to happen.

The good news is that the White House is now completing the National Biodefense Strategy, and the USDA and many other departments are seated at the table in drafting it. We have reason to believe that the drafters comprehend that human, animal, and environmental health are inextricably linked, and that the Strategy and its implementation plan will be grounded in that understanding. The White House should seize the momentum generated by this process and lead all relevant agencies to a new level of planning and operating with respect to biodefense that treats animal, human, and environmental health efforts as mutual contributors to our national, economic, and health security.

In closing, I would like to thank the numerous organizations that support the Study Panel's work through their generous financial donations. I would further like to state my gratitude to Hudson Institute for serving as the Panel's fiscal sponsor.

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