

FINAL

STATEMENT BY

FLOYD P. HORN, Ph.D.
ADMINISTRATOR, AGRICULTURAL RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE

BEFORE THE

UNITED STATES SENATE
EMERGING THREATS AND CAPABILITIES SUBCOMMITTEE
OF THE
ARMED SERVICES COMMITTEE

OCTOBER 27, 1999

FINAL

Thank you Senator Roberts and distinguished members of this subcommittee for the invitation and opportunity to speak with you in this forum on involvement of the Department of Agriculture (USDA) in threat reduction, counter-proliferation and nonproliferation activities. I am Dr. Floyd P. Horn, Administrator of the Agricultural Research Service, the in-house research agency of the Department of Agriculture. Under the auspices of the Freedom Support Act, Senator Roberts and I both had the opportunity to travel earlier this year to the Former Soviet Union to visit former-Soviet institutes which were previously associated with agricultural biological warfare (BW) activities. The USDA is working to establish collaborative research activities with many of these institutes and their scientists, and currently has cooperative research projects underway. The USDA focus is to pool our resources and jointly pursue research avenues that will benefit the U.S. and the collaborating countries, as well as to redirect the research focus in these institutes from BW work to civilian biotechnology and agricultural commercial research, reducing the likelihood for proliferation of their BW expertise. I would also like to take this opportunity to describe how USDA has been, in a closely related effort, examining its capacity and plans to anticipate and respond to the emerging threat of agricultural biological warfare to our nation's agricultural and food supply system. I will summarize briefly the internal and external USDA structure created to facilitate this new USDA mission. I will begin by addressing the latter activity.

FINAL

The Vulnerability of the U.S. Agricultural and Food Supply System to Terrorist Attack

An agricultural bioterrorism incident could have as an underlying goal either economic disruption or impacts on human health. The former could involve manipulation of futures markets for personal or institutional gains, or export market disruptions. Targeted activities directed at human health could include deliberate introduction of either chemical or biological agents that could be harmful or infectious to people into crops, livestock, or the food processing or food supply system.

The strength and value of the U.S. food and agricultural system makes it a vulnerable terrorist target. The agricultural sector accounts for some 13% of U.S. gross national product and is a key part of the U.S. economy, generating billions of dollars yearly in export revenues. Our agricultural and food supply system is the most efficient food production system in the world and serves to create an abundance of wealth in other ways through supporting industries. By virtue of its efficiency and success, and compounded by recent trends toward concentration in the sector, the U.S. is vulnerable to an agricultural bioterrorism incident specifically targeting key animal or plant commodities.

The Threat of Agricultural Bioterrorism

As awareness of this threat has increased within the intelligence and counterterrorism communities over the past two years, USDA has worked with these communities to position

FINAL

agriculture to anticipate and respond to such a threat. In fact, activities in three countries have been identified that reflect agriculture biological warfare capabilities. For example, the former apartheid-era government in South Africa may have weaponized anthrax BW agent, in addition to other pathogens, which could be effectively employed against animals. The government of Iraq has performed research on numerous plant pathogens which can affect crops such as wheat. These pathogens are both highly destructive and rapid-spreading. And we now know that the former-Soviet Union's BW program, the largest of any in history, had a robust agricultural BW research and development capability which may have involved as many as 10,000 critical personnel at facilities across the former-Soviet Union's territory. These scientists succeeded in weaponizing a range of agricultural BW agents including wheat stem rust, rice blast, rinderpest and possibly others. Furthermore, foreign terrorist groups have also indicated a desire to acquire a BW capability.

The USDA Response

To respond to the threat, the department is focusing on preparedness and protection of U.S. agriculture's vertical infrastructure and the nation's food supply system. Last year, at the request of Secretary Glickman, a Department of Agriculture interagency committee prepared a plan for USDA's leadership in protecting our nation's agricultural production, processing and marketing systems. The plan includes six recommended goals for the department:

FINAL

- ! Prevent and deter terrorism within the U.S. and against U.S. interests abroad.
- ! Maximize international cooperation to combat terrorism.
- ! Improve domestic crisis and consequence planning and management.
- ! Safeguard public safety and protect agriculture and the nation's food supply.
- ! Safeguard critical infrastructures in agriculture and the nation's food supply system.
- ! Conduct research to enhance counterterrorism capabilities.

The USDA is cooperating and partnering with the National Security Council, the Department of Justice, and other departments and agencies with responsibilities under Presidential Decision Directive (PDD) 62 concerning USDA's role in the administration's counterterrorism programs. USDA is a member of the NSC Weapons of Mass Destruction Preparedness Group, and serves as chairman of a key subgroup within that committee structure that deals with food and agriculture protection issues.

In June 1999, Secretary Glickman approved establishment of a USDA Counterterrorism Policy Council chaired by Deputy Secretary Richard Rominger, and co-chaired by Dr. Catherine Woteki, Under Secretary for Food Safety. This council, comprised of Under Secretary-level representatives as well as Staff Office Directors, serves as the senior USDA policy forum for coordinating and leveraging departmental-wide support on bioterrorism issues. This council is supported by three subgroups of administrator-level representatives within USDA that provide

FINAL

internal support on biosecurity, cybersecurity, and continuity of government matters, and also interface with other agencies in support of U.S. government counterterrorism initiatives. Taken together, this internal and external structure has enabled USDA to characterize its strengths and vulnerabilities in the face of this threat, and to position itself as a critical component of the U.S. collaborative infrastructure to deal with the threat as necessary.

Threat Reduction and Non-Proliferation Activities at USDA:

The Biotechnology Collaboration Research Program

As I mentioned at the outset, I recently returned from an official visit to a number of former-Soviet institutes which were previously associated with agricultural biological warfare activities. These facilities, located within the Russian Federation, are interested in performing collaborative agricultural research with USDA on a range of peaceful civilian scientific topics. The goal of my trip was to facilitate long term collaboration with these scientists, to leverage their animal and plant disease expertise for mutually beneficial purposes while minimizing BW proliferation concerns. USDA interaction with the Former Soviet Union in this respect actually dates back to visits by a USDA research scientist under former Agriculture Secretary Madigan in the Bush Administration. That scientist visited a total of 20 labs in the Former Soviet Union that were engaged in weapons programs.

FINAL

USDA involvement to date in Biotechnology Collaborative Research Program activities funded by the Department of State under the Freedom Support Act began with a trip of 3 USDA scientists in September, 1998; continued with my own trip in August of this year; and includes a followup trip by 4 USDA scientists just last month. Prior to my visit in August 1999, USDA solicited cooperative research proposals from FSU scientists, based on research areas identified by the FSU scientists. Of the 74 resulting proposals USDA received on the first trip, we identified 8 as being of interest to the U.S., and after a comprehensive interagency review, and subject to available funds, we were able to fund half. During my recent visit, I carried a prospectus of broad cooperative research opportunities that the USDA was interested in, and left the prospectus with each of the 6 institutes I visited. To date, we have received at least 46 collaborative research proposals, no less than 30% of which come far closer than the earlier solicitations to meeting the needs of the USDA/ARS scientific agenda in supporting U.S. agriculture. We can fund 1/3 of these, based on Freedom Support Act funding requested for FY2000 as an element of the Department of State request under the multi-agency, expanded threat reduction initiative. These activities complement and supplement other U.S. Department of State and Department of Defense nonproliferation programs. There is a far greater demand and need for additional research funding than even the existing FY2000 request can support. By way of summary, our own heavy investments in scientific expertise in this area enabled USDA to be the recognized expert source in the U.S. government and to receive \$550,000 in Freedom Support Act funds during FY1998, our first year of activities, and an additional \$2 million in FY1999. Depending on Congressional

FINAL

approval of appropriations, we anticipate additional Freedom Support Act funding in FY2000.

USDA looks forward to further involvement as these collaborative activities move forward.

In summary, I would point out that USDA plays a key role in supporting non-proliferation of chemical and biological terrorism activities, and that the Department has positioned itself to protect the nations= agriculture and food supply system and human health in ways which complement and strengthen U.S. government counterterrorism programs and activities. We look forward to further close cooperation as these ongoing initiatives mature. Thank you Mr. Chairman. I ask that my full written statement be entered into the record.