

**Testimony of Dr. Chuck Lambert
Deputy Under Secretary for
Marketing and Regulatory Programs
U.S. Department of Agriculture**

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Subcommittees on Fisheries Conservation, Wildlife & Oceans
and Parks, Recreation, and Public Lands
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Thank you. I am pleased to be here on behalf of the U.S. Department of Agriculture to discuss invasive species in the United States.

We do not need to spend a lot of time discussing the dangers inherent in invasive species, those injurious animals, micro-organisms, and plants that have the ability not only to survive, but to *thrive* in new environments. That many of these species are already here in the United States, or are being kept at bay nearby, highlights the fact that, in today's world, invasive species have the means to move quickly from one habitat to another. To understand how this is possible, we simply need to trace the routes that international and domestic travelers and cargo follow on a daily basis. As one of USDA's posters on this subject reminds us, "Not All Alien Invaders Are From Outer Space." We know that these dangerous invaders may try to hitch a ride in travelers' suitcases or agriculture commodities and products bound for U.S. markets.

USDA has extensive authority under the law to address invasive species in the United States. The Plant Protection Act and Animal Health Protection Act, for example, give USDA the authority to set import regulations that help keep exotic pests and diseases out of the United States. When necessary, USDA officials can also respond swiftly to detections of invasive species that potentially threaten U.S. agriculture or the environment. USDA officials can quarantine affected areas, remove affected or exposed plants or animals, and, in serious cases, pay compensation to growers and producers in an effort to prevent the further spread of the pest or disease.

To help prevent invasive species from making their way to the United States, USDA enters into sanitary agreements with other countries to either prohibit imports from areas in which a pest or disease may be prevalent or to require treatments to mitigate the potential of an infestation. USDA also may implement preclearance inspections of imports at foreign ports, before they even arrive in the United States. In addition, the Agricultural Quarantine and Inspection Program, recently moved from USDA to the new Department of Homeland Security, has between 3,500 and 4,000 inspectors working to prevent the entry of articles that can endanger U.S. agriculture through inspections of people, cargo, and modes of transport at U.S. borders. While these inspectors now wear uniforms issued by the Department of Homeland Security, they remain closely linked to

the agriculture mission and will be available to assist us should an emergency situation arise.

Despite these efforts, the increased number of pathways available to invasive species can jeopardize our country in numerous ways, from public health, to the economy, to our native ecosystems. The estimated economic harm to the United States from biological invaders runs in the tens of billions of dollars and may exceed \$120 billion annually. The reported number of cases of West Nile virus in humans, birds, and horses, has risen dramatically each year since the disease was first confirmed in the Northeastern United States in 1999. The Asian longhorned beetle remains a problem in the New York City and Chicago areas. Various introduced weeds, such as giant hogweed, yellow starthistle, and kudzu, consume some 3 million acres of U.S. land every year. Nutria are responsible for the loss of marsh grasses in the Chesapeake Bay. And plant pests and diseases, such as citrus canker, sudden oak death disease, and the glassy-winged sharpshooter, threaten important domestic industries that employ thousands and are vital to State economies.

The Federal Government must deal with the problem of invasive species in a strategic manner. For this reason, the National Invasive Species Council was created through an Executive Order in 1999 to help plan for future challenges and coordinate prevention and response efforts across the country.

The Council, co-chaired by USDA and the Departments of Commerce and the Interior, coordinates the work of involved Federal agencies, ensuring that resources are used wisely and that our experts are consulted regularly. It helps Federal agencies communicate not only with each other, but with members of the public, industry groups, and State and local officials.

Of recent note, for example, the Council is working to provide State officials with expanded roles in the planning and coordination of efforts to address invasive species in the United States. In addition, the Council appoints members to the Invasive Species Advisory Committee (ISAC). The ISAC is comprised of an array of scientific and policy experts who provide information and advice for consideration by the Council and recommend plans and action against invasive species at the tribal, State, and regional levels.

The most important tool at the Council's disposal is its invasive species management plan. Developed and regularly fine-tuned by participating Federal agencies, this national plan helps involved officials to better coordinate responses to new situations.

For its part in the coordinated effort against invasive species, USDA provides its partners and cooperators with expertise in the areas of invasive species prevention, emergency response, control, and scientific research. These are some of the things that we do best, and we have refined our efforts in these areas over many years. The following points offer a brief overview of USDA's primary responsibilities with regard to invasive species, followed by more specific examples of some of the work being done by each of USDA's participating agencies:

- **Prevention of new harmful introductions:** USDA provides an integrated safeguarding system to protect America's agricultural and natural resources against invasive species. USDA's safeguarding system includes port inspections, quarantine treatments, detection surveys, and eradication efforts. Domestic programs also prevent the spread and establishment of invasive species within the United States.
- **Management of Federal lands:** USDA works to address invasive species that have been recently detected, or have become entrenched over the years, on Federal lands under our purview. This work includes controlling outbreaks and restoring impacted areas.
- **Providing technical advice and assistance:** Working directly with State officials and private landowners, USDA officials can often utilize and disseminate the latest information and technology developed by our researchers in the fight against invasive species. In many instances, new techniques and tools developed by USDA researchers and methods development specialists have made real differences during emergency outbreak situations and as part of our longer, sustained campaigns to control and eradicate invasive species.
- **Research and technology development:** USDA actively supports and carries out the empirical research necessary to establish basic knowledge of invasive species already present in the United States or located outside our borders. USDA also conducts research at the ecosystem level. With this knowledge base, USDA and its partners can take the appropriate steps to exclude invasive species and respond effectively to the ones already here in our country.
- **Regulation:** USDA works to develop science-based regulations that protect U.S. agriculture and the environment from invasive species and balance the needs and interests of producers, growers, shippers, and a host of other businesses and individuals across the country.

Within USDA there are six agencies that have leadership roles in preventing and dealing with the introduction and spread of nonnative invasive species into the United States. These agencies are involved in research, regulation, operations, partnerships, technical and financial assistance, and education.

The primary focus of our Animal and Plant Health Inspection Service (APHIS) is to protect American agriculture. In combination, APHIS activities are commonly referred to as our safeguarding system and encompass a broad range of efforts, including inspections, surveys, and pest and disease eradication programs. APHIS' new strategic plan emphasizes the protection of ecosystems against the establishment of harmful and costly invasive species. To meet this goal, APHIS officials, among other things, conduct in-depth analyses of the major pathways invasive species can follow into the United

States. With this information, APHIS can adjust and tighten components of its safeguarding system to close down these pathways and maintain its high level of vigilance against the introduction and spread of harmful invasive species.

In other areas, the Agricultural Research Service (ARS) provides USDA with the latest innovations and technological breakthroughs in the field of invasive species management. ARS cooperates extensively with university and private partners to conduct research on a wide variety of pests, invasive plants, and animal diseases. These efforts are focused on detection technology for ports of entry, systematic research to rapidly identify exotic species, and pesticide application technology. ARS also conducts research on biologically based pest management, remote surveillance of pests targeted by integrated pest management programs, and restoration of grazing lands. ARS scientists and the Agency's stakeholders and partners can develop large scale, multi-disciplinary research teams, as well as targeted species-specific projects.

Agencies like the Forest Service and the Natural Resources Conservation Service are focused on taking care of our Nation's environmental resources. Coordination and consultation is important between Federal and private landowners who work together to manage nonnative weeds that grow across boundaries. The coordination and priority setting that occurs between Federal, State, and private partners becomes more critical as State and Federal funds that affect multi-jurisdictional boundaries are allocated. In locations where a national forest is adjacent to private land and invasive species have become a serious problem, the Forest Service can allocate funding to that location in a coordinated effort by combining resources from the National Forest System and State and Private Forestry Deputy Areas.

The Natural Resources Conservation Service can work with private landowners to use funds available through the Environmental Quality Incentives Program, the Wildlife Habitat Incentives Program, and the Wetlands Reserve Program. Secretary Veneman recently announced the opening of a new sign-up for the Conservation Reserve Program and released \$1.8 billion for conservation assistance on working lands and to protect environmentally sensitive lands. Within this program, funds can be used to eradicate, control, and/or replace invasive plants to achieve conservation goals.

In combating an invasive infestation on National Forest System lands, the Forest Service, like other Federal agencies, has to meet the requirements of the National Environmental Policy Act (NEPA), the Clean Water Act (CWA), and other laws and regulations, where applicable.

The Cooperative State Research, Education, and Extension Service (CSREES) supports USDA agencies at the local level with outreach efforts and research programs at Universities and land grant colleges as well. In addition, CSREES is working along with APHIS right now to bolster our Nation's diagnostic laboratory infrastructure—a critical initiative with regard to homeland security *and* our ongoing vigilance against foot-and-mouth disease and other exotic pests and diseases of concern.

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And, finally, USDA's Economic Research Service (ERS) conducts research and analysis of economic issues connected to agriculture and the environment, including invasive species, integrated pest management programs, biodiversity, and agricultural and environmental sustainability. ERS is also developing a new research program that will concentrate on examining the economics involved in managing invasive species in the United States. Research generated by this program will assist USDA officials in making policy and program decisions and directing resources to needed areas.

These specialized agencies have distinct missions, but they all work toward one primary goal of protecting the Nation's agriculture, environment, and food supply. Addressing invasive species is a large and multifaceted part of this task, but USDA works to coordinate efforts and present a unified front. One of the most important initiatives we have undertaken is to participate in the development of an invasive species interagency "cross cut" budget, led by the National Invasive Species Council. The FY 2004 crosscut contained only a subset of USDA activities, in the FY 2005 effort we plan to include all USDA programs and other efforts related to invasive species. This initiative is helping agency personnel share information and resources and reduce repetitive activities. We are also better able to support research that gives us new tools to improve our prevention and response programs. And we can consider and develop new approaches to longstanding problems.

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USDA agencies are also members of several interagency/interdepartmental coordination committees that are working to address invasive species in the United States. These committees include the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW); a new interagency group called Managing Invasive Insects, Animals and Diseases; and the Aquatic Nuisance Species Task Force. Participation in these committees, in addition to ongoing interaction with professional societies and academia, helps our officials stay in close contact with other Federal agencies, scientific and industry experts, and a host of other groups all working in different areas of the invasive species effort.

In the fight against invasive pests, USDA realizes that community groups and residents are some of our strongest allies. USDA and our cooperators can't be in every neighborhood, every forest, every park simultaneously looking for exotic pests. Each extra pair of eyes, then, that we can rely on to look for signs of plant disease, strange-looking insects, or exotic weeds are an invaluable asset to our surveillance programs.

In last year's homeland security supplemental funding package, USDA received additional funding to support pest detection activities. We have distributed this money to the States so they can help us improve the infrastructure needed to organize, coordinate, manage, and facilitate pest detection surveys at the State level. The objective of this pest detective initiative is to educate and enlist the cooperation of appropriate nongovernmental groups—gardeners, tree wardens, university diagnostic laboratories, and nature conservancies—to be on the lookout for exotic and indigenous plant pests and diseases. Because these groups are on the front lines, they will likely prove most efficient and effective in detecting signs of pests and diseases at the field level.

In conjunction with expanded surveillance for invasive pests, we acknowledge the absolute necessity of being able to respond to serious pest and disease detections in a swift and coordinated manner. USDA has specific emergency response guidelines for many of the invasive plant and animal pests or diseases that pose a significant threat to the United States, including foot-and-mouth disease, bovine spongiform encephalopathy, and some exotic fruit flies. We've developed these response plans in conjunction with our Federal, State, and local partners and even conducted 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, State, and industry containment and eradication efforts.

APHIS, based on the model developed by the Forest Service to manage fire response efforts, has moved to the incident command approach to emergency response. Incident command places teams of emergency personnel and managers directly in the field to coordinate response efforts. These teams, in turn, report to incident commanders on the scene, in addition to a national incident commander and other involved officials across the country. 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.

APHIS also has a new Emergency Operations Center located just outside Washington, D.C. The Center is an 8,800-square-foot, state-of-the-art facility that serves as the national command center for management of APHIS emergency programs. During an emergency, it can support 65 personnel and operate 24 hours a day, 7 days a week. The Center's communication capabilities include video teleconferencing, advanced computer interfaces, and Geographical Information System mapping. The Center, in combination with quick-response incident command teams, gives APHIS the tools and resources necessary to effectively coordinate and manage the comprehensive response to emergency situations that have the potential to seriously affect U.S. agriculture or the environment.

USDA is also working right now to fill the gaps in contingency planning for detections of invasive species that may occur in natural or remote areas of the country, places that are difficult to access or located away from our routine monitoring and surveillance efforts. USDA, for instance, is participating with FICMNEW in developing an early warning plan for invasive plants. To protect the environment, the public health, and agricultural industries, it is essential that we monitor for and respond swiftly to *all* invasive species introductions. As we've learned, the risk of spread and damage to our resources is too great for us not to be prepared.

Now, while USDA has worked hard to ensure that we have the infrastructure, tools, and support necessary to address invasive species in today's world, there are some instances when we find ourselves challenged by an unforeseen problem. Situations involving invasive species can be, at times, extraordinarily complex, cutting across not only

geographic but agency boundaries. Another complication is that in some cases we lack the knowledge to properly look for and eradicate new invasive species. In these situations, Federal officials must oftentimes balance quick response with patience and planning. Emergency research also needs to be made a priority and incorporated into response plans to give officials the information and tools necessary to do their jobs. And, most importantly, the interests and needs of those most affected must always remain in focus.

One example is the emerald ash borer, an exotic forest pest recently discovered in Michigan, Ohio, and portions of Canada. This pest, a relative of the Asian longhorned beetle, demonstrates the frustration that can be brought about by invasive species. Many years ago, after the exotic Dutch elm disease wiped out trees across the country, ash trees were planted in backyards, forests, and parks. Many of these trees have reached the size of the elms they replaced, and now *another* invasive species threatens them. Officials with the Forest Service and APHIS are working closely right now with State and local representatives in Michigan and Ohio to determine just how widespread emerald ash borer is and what we can do to stop its spread. Removal of infested trees has already begun in parts of Michigan and Ohio.

Another example is that of sudden oak death disease, a newly identified forest disease. The disease, which has killed thousands of tanoaks and oaks in coastal areas of central California, was introduced into the United States a few years ago. At that time, APHIS and the Forest Service developed a National Sudden Oak Death Detection Survey of forests through the Forest Service's Forest Health Monitoring Program. Since the establishment of the survey, small infestations were recently found in southern Oregon and eradication efforts have begun. Laboratory investigations indicate that other oak species, including northern red and pin oak, are susceptible to the pathogen. The Forest Service and APHIS are working closely with other Federal, State, county, and local government agencies, as well as nonprofit organizations to ensure a coordinated sudden oak death detection survey is implemented in high-risk areas nationwide.

In Florida's Everglades, Old World climbing fern, a plant native to Africa, Asia, and Australia, has become well-established in many areas, smothering shrubby and herbaceous plants on the ground and climbing into the tree canopy. In some places, the fern has engulfed entire Everglade tree islands, pinelands, and cypress swamps. It has even spread across open wetland marshes. As a result, native plants have not been able to regenerate, as thick mats of old fern material have accumulated on the ground. And, should a fire occur, the fern can help to spread the conflagration along the ground, up and on top of trees, and even through wet areas. Because of these serious threats, for the last several years, USDA and its partners in Florida have been working to stop the spread of Old World climbing fern. While herbicides and hand-cutting have registered some success in specific areas, these techniques cannot be used across the entire Everglades, and herbicides cannot be used in certain sensitive areas. USDA researchers, therefore, are also examining the potential of employing biological control organisms against this plant. With further research and the appropriate approval, it may soon be possible that

tiny moths, mites, or perhaps some other organism may be deployed in the Everglades to check Old World climbing fern.

A final example of a challenging situation involving an invasive species is the coqui frog in Hawaii. This small, invasive frog has become established in areas of the State, much to the displeasure of many residents, tourists, biologists, and agricultural producers. However, at the same time, the frog is beloved in its natural home of Puerto Rico, and animal rights groups have objected to efforts to address its presence in Hawaii. USDA scientists have been working to develop suitable control techniques that may help to reduce coqui populations in Hawaii. While USDA is currently conducting more study in this area, our officials in Hawaii have also taken the lead in drafting a management plan for Caribbean tree frogs in the State.

USDA appreciates the Committee's interest in not only our programs to address invasive species, but also the problems we regularly face in responding to new situations, working with new partners, and taking into consideration different interests and viewpoints. As USDA's point person for invasive species, I am learning much in these areas as well, and I look forward to working with the Committee in the future. Thank you for the opportunity to be here today.