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ENHANCEMENTS IN SAFEGUARDING AGAINST INVASIVE PLANT PESTS

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Plant Protection and Quarantine (PPQ), a program of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), is the national plant health protection organization of the United States. PPQ's mission is to safeguard agriculture and natural resources from the risks associated with the entry, establishment, or spread of animal and plant pests and noxious weeds. Fulfillment of PPQ's safeguarding role ensures an abundant, high-quality, and varied food supply, strengthens the marketability of U.S. agriculture in domestic and international commerce, and contributes to the preservation of the global environment. PPQ carries out this mission through various means, including the gathering and analysis of pest data; offshore risk management; quarantines and regulatory requirements; port of entry inspections; pest detection activities; and control and eradication of pests. These and other activities provide layers of protection that form an effective safeguarding continuum.

To ensure that we have the strongest safeguarding system possible, we asked our State counterparts at the National Plant Board (NPB) to review the primary components of the safeguarding system and make recommendations for enhancements. The four interrelated activities we asked them to review were the collection and use of international pest information; the use of permits to manage risk; exclusion of pests; and detection of and response to pests that enter the United States. The NPB put together a 43-member Review Group that included representatives of States, industry, academia, and advocacy groups. A PPQ Steering Committee defined the parameters of the review; provided background information and access to employees, sites, and records; and ensured that the group stayed focused on meeting the program's needs. In carrying out the review, they looked at what was working, what wasn't working, and what could be done to strengthen the system. The Review was designed to elicit recommendations to address clearly-defined problems. It was designed to bring a balanced perspective to the myriad challenges we face by including the views of employees, industry, States, academia, and environmental groups. It was designed to be objective.

The Safeguarding Review Report, *Safeguarding America's Plant Resources*, was delivered to the Department in July 1999 with high expectations among our stakeholders and within the program for its implementation. We immediately put a structure in place to evaluate the recommendations in the Review and develop action plans to implement any recommendation that was practical and that would contribute to the mission of safeguarding. The action plans are put through a full vetting process, first among informal peer review groups, then through the PPQ Steering Committee. After they have been reviewed by the Steering Committee, the action plans go to PPQ's top management for review, then the plan is posted on the safeguarding website, www.safeguarding.org, where internal and external stakeholders have 2 weeks to comment on the plans. When the comment period is over, the plans are turned over to program personnel for implementation.

The review contained more than 300 recommendations. Action plans covering 227 recommendations have been submitted to the Steering Committee for review. Action plans covering 150 recommendations have been through the entire process and have been turned over to the program for final implementation. The rest continue to be evaluated. We have made substantial progress toward implementing the recommendations in the Safeguarding Review in the 2 years since implementation began. The events of September 11, 2001, caused a minor delay, but also redoubled our determination to complete this process and ensure that we can continue to ensure food security in this country as well as the protection of our plant resources.

The Forces of Change

But, as we said in last year's report, numbers alone are not results. The question we must ask is what has changed in PPQ? How do we define and measure success? Indeed, what does change mean? Dean Acheson once said "If we learn the art of yielding what must be yielded to the changing present we can save the best of the past." PPQ has a long and proud history, punctuated by many successes. As we work to strengthen our organization through change, we must not lose the strengths that are rooted in our history. Change is sometimes revolutionary, but more often, it is evolutionary. That is the type of change we have been engaged in. It is incremental and can be difficult to measure. Its effects may be felt immediately or may take several years to ripple through the organization, but change is inevitable. When it does occur, it is most often the result of multiple forces—economic, sociological, scientific, technical, and political. The Safeguarding Review is both a force for change and a reflection of the multiple forces at play in the larger world that created the need for change.

Continued Progress

Last year, we highlighted accomplishments that constituted foundational issues such as funding, organizational issues, leadership, strategic direction, and authorities. We continue to make progress in these areas. Last summer, we completed the revision of the PPQ mission and vision statement and developed values for the organization. A brochure highlighting the history of the organization and defining the mission, vision, and values has been produced and distributed to all employees and to key stakeholders as well. The revised mission and vision have been integrated into the program's strategic planning process and the strategies outlined for carrying out PPQ's mission are linked, wherever possible, to the recommendations and principles of the Safeguarding Review. In addition to linking safeguarding implementation to strategic planning, PPQ's Executive Team has embarked on an effort to define what success will look like when the recommendations in the Review have been fully implemented.

Other accomplishments from last year that we have completed or built upon include:

- Reorganization of our risk assessment processes so that all of them will be carried out in one unit that can coordinate all the various resources that must be brought to bear on this important task. In addition, we have hired a National Science Program Leader for Risk Assessment to provide overarching coordination to risk assessment activities at our Center for Plant Health Science and Technology (CPHST).
- Increased funding for CPHST by 13.94% in FY 2001 and a further 15.89% in FY 2002 for a total CPHST funding increase of 29.83% between fiscal years 2000 and 2002. These increases for scientific enhancements are directly tied to safeguarding recommendations. Over time, this investment will result in more effective tools for evaluation of risk, exclusion, pest detection, and eradication.

- Completed the rewrite of our civil penalties guidelines to reflect the significant increases in penalty authority. New penalty authority has been implemented for all but spot settlements. A complete training package on civil penalties and on the authorities contained in the Plant Protection Act (PPA) of 2000 has been developed and distributed. Training will be completed and spot settlements under the new guidelines will be imposed by September 30, 2002.
- Finished the placement of digital imaging in all ports with identifiers and have begun placing the equipment in ports without identifiers that handle the largest numbers of pest interceptions according to historical pest interception data.
- Continued to play a leadership role in the international arena. Completed an expanded preclearance agreement with Canada and worked with the International Plant Protection Convention (IPPC) to develop a strategic plan for international standard setting.
- Continued work on a multi-year revamping of our public education strategy by shifting to a marketing strategy and hiring a highly respected public relations firm with a national network to identify target audiences and develop effective messages to reach those audiences. This will increase the public's understanding and support of PPQ programs and compliance with our regulations.
- Completed implementation of the smuggling interdiction and trade compliance (SITC) program. This initiative is proving to be very fruitful. Nationwide, we now have 62 SITC officers and supervisors who conduct market and border blitzes; conduct tracebacks of potentially smuggled products; investigate smuggling cases; and work with industry to increase compliance with import regulations. We are in the process of hiring 26 more SITC employees. In FY 2001, SITC conducted about 10,000 market inspections and 10,000 cargo inspections. They had 8,246 seizures of contraband meat, meat products, and plant material weight a combined total of nearly 330,000 pounds. From these activities, we collected \$305,495 in penalties; additional violation cases were pursued by the Office of the Inspector General based on the work initiated in PPQ.
- Continued work with the Invasive Species Council to ensure that our mission and the goals and objectives of the Council are coordinated effectively in the many places where the two merge.

New Initiatives

Pest Detection and Emergency Response

One of the most critical areas of need identified in the Safeguarding Review was the need to strengthen our pest detection infrastructure and develop a more effective system for prioritizing pest detection activities. We have long been hampered in our ability to strengthen this component of the safeguarding system by static funding. However, the events of September 11, 2001, led to a recognition that we must strengthen pest detection if we are to ensure the future of food security in America. The FY 2002 Supplemental appropriation provided \$25 million in pest detection funds. Initially, we will focus these funds on critical needs such as surveys to support ongoing emergency programs and other pest management programs. In addition, we will use this significant increase to support a stronger Federal-State cooperative pest detection program. We will use the three-tier Federal, regional, and State committee system contemplated by the Safeguarding Review to help plan detection activities and establish priorities. Pest lists that have been developed by various professional societies and within PPQ will be used to prioritize national detection activities. We are also beginning to plan how to incorporate the pest lists, PPQ interception data, existing pest detection databases, and other data into a linked

database that can be used for multiple purposes—risk assessment, resource allocation, staffing, strategic planning, and operational planning, for example.

Leadership will be critical to the success of detection activities. The Safeguarding Review recommended linking detection and emergency response so that we could move quickly when a significant new pest is identified in the United States. In establishing the Surveillance, Emergency Programs, Planning and Coordination Staff (SEPPC), we directly linked these two components and provided executive level leadership to these intertwined activities. The Assistant Deputy Administrator for SEPPC, supported by a survey coordinator and a director for emergency programs provides the overarching planning and coordination to support pest detection and rapid response in PPQ. The staff also ensures that emergency action plans for high-risk pests are prepared and up to date to allow us to respond effectively to significant pest incursions. All of these activities are supported by recommendations in the Safeguarding Review.

Linking Risk and Decisionmaking

The pest lists, interception data, and information that we will be using to prioritize exclusion and detection activities will support many other risk-based activities as well. Many of these activities are, in turn, supported by recommendations in the Safeguarding Review. For example, the Review recommended that we either work with Canada to harmonize import requirements or, as an alternative, strengthen our inspection activities along the Canadian border. We have had a number of discussions with Canada over the years about harmonization, but it is difficult for them to justify more stringent import recommendations under international protocols when their industries are incurring no risk from those importations. We will continue to explore other options with them, but in the meantime, we are focusing our efforts on strengthening border activities. As a precursor to this, we are completing a pathway risk assessment of Canadian border traffic. The assessment will help us target our activities where they are needed most and will help us make resource decisions, including decisions on the deployment of staffing.

We are also continuing to evaluate transit shipments through the United States. New draft guidelines have been prepared and we are revisiting the level of risk associated with each type of commodity so we can see how well we are positioned to manage these risks and decide on any modifications that may need to be made in the future.

The strong focus we are placing on the collection and analysis of data has made us look at our infrastructure for these activities. The safeguarding review recommended improving the quality of data collected and using it more effectively and we fully concur with those recommendations. We recognize that this will mean strengthening our analytical capacity both at the regional offices and throughout the field. We have begun by establishing quality assurance units in the regional offices. This will be followed by a pilot project in one or both regions to establish a few State and port analyst positions and see how they can be used to monitor the quality of the data collected and analyze that data to fine-tune risk mitigation and other operational activities. When we have a fuller sense of the range of skills needed and the value they can bring to safeguarding activities, we will expand the pilot project accordingly.

In the meantime, other pathway risk assessments that were recommended in the Safeguarding Review have been done or are in the process of being done, and we will use the pathway assessments to make operational decisions. These include assessments for private aircraft and cruise ships.

Another important tool being developed is a risk-based staffing calculator. There were several recommendations in the Safeguarding Review that urged us to use a variety of data sources, particularly

agricultural quarantine and inspection monitoring information, to allocate resources and target operations and other activities. The risk-based staffing calculator takes basic interception data and assigns risk on a port-by-port basis to the interceptions. Based on this evaluation, the staffing calculator will provide an outline of staffing needs, which can be used by the port director and supervisors to develop staffing plans and determine appropriate schedules. Similarly, it will provide information that can be used to make operational decisions such as where to place staffing and whether service hours should be modified.

Strengthening Science and Technology

The CPHST meets critical needs of PPQ's operational activities. CPHST evaluates our need for new tools or technologies and either develops them in-house or works with the appropriate organizations, inside and outside of government, to provide research support. This year, under new leadership, CPHST has worked to strengthen its infrastructure and organize its work to better leverage the tremendous expertise within CPHST and the rich variety of resources available outside of CPHST. To improve the flow of work within the organization, we are instituting a system of work plans and using project management tools to monitor progress at key decision points along the way. An internal review process has also been developed and will be implemented to ensure that our scientists are receiving appropriate peer review and that they are appropriately recognized for their work. The review process will also include internal customers so that we can tighten the link between the development or improvement of tools and technology and operational program needs. In addition, PPQ will work more closely with USDA's Agricultural Research Service (ARS) to ensure that the work they are doing will support safeguarding initiatives. This will be done under the auspices of a Memorandum of Understanding that was signed in January 2002 between the APHIS and ARS.

Also in the field of technology, we have completed development of the first generation of a system to issue phytosanitary export certificates electronically. The system will be beta tested shortly and a pilot project will follow soon after that. The entire process, which includes working with trade partners to be able to read and validate the electronic certificates, will take several years to complete, but we have taken the first important steps in making this an "e-business" system.

Exclusion and Risk Mitigation

Many of the recommendations in the Safeguarding Review had to do with exclusion and risk mitigation because having strong mechanisms in place to support these activities provides the greatest protection to our agriculture and plant resources. Conducting the Canadian border and other pathway risk assessments and bolstering our staffing and inspection activities along the Canadian border are two activities already underway that will enhance exclusion and risk mitigation efforts.

Because of increased concerns over the worldwide situation with foot-and-mouth disease and heightened awareness of border security in the aftermath of the September 11 attacks, Secretary Veneman has committed to increasing PPQ's border staffing at ports of entry throughout the United States. This will result in significant increases in staffing over the next 1-3 years. In fact, we are committed to hiring a minimum of 350 new agricultural quarantine and inspection personnel by the end of fiscal year 2002, in addition to increasing SITC personnel to 100 positions nationwide. We will use the information available to us through pathways assessments and various databases to more strategically place these employees where we believe the highest risk to be. We are also asking our port directors and supervisors to scrutinize more closely the skill sets that are needed to get the job done. For example, it may not make sense to hire another officer if there is, instead, a need to hire a data entry clerk to address backlogs of

data entry in the pest interception database. We want to ensure we have the right number of people with the right skills in the right places.

We have also taken a serious look at some of our x-ray needs. PPQ uses x-ray at many ports to identify passenger baggage for more intensive inspection. We had invested significant resources in the development of a version of tomographic x-ray, a so-called “smart x-ray” technology, but a finished product with practical application still had not been developed. So, we asked the Massachusetts Institute of Technology to take a look at the entire project and provide us with sufficient information to make a decision on whether to proceed with or end the project. Based on their evaluation, we decided to pursue other options. We will be pursuing a solicitation for 2-3 research development contracts for two types of automated x-ray technologies with agriculture product detection capability. In the meantime, CPHST, working with our Port Operations staff, has developed a spreadsheet to assist port directors in making decisions about purchasing new x-ray equipment. The spreadsheet will be updated periodically with new information. For example, the second iteration, when fully developed, will contain additional information on the equipment and applications best suited for different types of inspections such as baggage or mail. We will, of course, continue to expand our use of other technologies as well. The expansion of the detector dog program that was begun last year has exceeded its original targets. By June of this year, we will have increased the number of detector dog teams by about 130 teams. We are expanding the use of the dogs in mail and cargo as well and will continually evaluate our breed selection and training methods with a view toward continuous improvement.

The Safeguarding Review recommended that we take a look at other inspection methods as well. One such recommendation dealt with expansion of our inspectors into “preprimary” locations at ports of entry. Preprimary locations are chokepoints before passengers reach the Customs counter. In one or two locations, we have placed people at these chokepoints to review Customs declaration forms and refer passengers for secondary inspection. In most locations, we rely on the Customs Service to make these referrals. Having PPQ officers in preprimary has been helpful in some instances, but it is not always practical because of airport configurations or, in some cases, for safety reasons. For example, it is very risky to ask our officers to walk up and down lines of moving traffic at land border crossings to evaluate declaration forms before the vehicles reach the Customs booth. Our ability to staff preprimary locations is also dependent upon our overall staffing and local discussions with the Customs service about how best to configure the Federal inspection services. We will continue to look at preprimary activities where it might be effective, but it will be evaluated on a case-by-case basis. Another recommendation encouraged us to look at banning fresh fruit and vegetable products in passenger baggage. However, because such a ban would be indiscriminate, we have instead proposed to require phytosanitary certificates for any fresh product, regardless of how it is carried. This would put the burden of demonstrating freedom from pest risk where it belongs—on the country of origin. We have long required phytosanitary certificates for commercial shipments, but the proposal to apply it to passenger baggage is new. We are still in the proposed rulemaking stage and have received a number of comments that will have to be evaluated before deciding on a final course of action.

Late last year, we hosted a meeting with the U.S. Customs Service and other Federal inspection services to talk about some of our new initiatives and proposals and to find out what their future direction will be. We were looking for ways we could be mutually supportive and we pointed to the Safeguarding Review’s recommendations as a priority focus for PPQ. We agreed at that meeting to put together some joint working groups to make some of these initiatives a reality.

We are also following the guidance of the Safeguarding Review in attempting to address more of the risk offshore. To this end, we have agreed to work with APHIS’ International Services program to place a few employees with plant health backgrounds in strategic locations in Asia and Europe to evaluate risk at its

source and see what steps could be taken to mitigate that risk. The type of work we are contemplating goes well beyond the traditional preclearance programs. It would place more emphasis on the collection of risk information and the use of that information to develop mitigation strategies. For example, are there any recommendations we can make to producers or shippers at the point of origin that will lessen the risk of pest transmission? Or perhaps there are steps the foreign government can take to reduce risk at origin. There is much potential in this approach and we will use the pilot project to explore that potential and see what additional measures we can take in the future.

Coordination and Communication

Wherever possible, the Safeguarding Review encouraged collaboration, coordination, and communication. The stakeholder registry on our website is one result of those recommendations. The registry is online, and the enhancements needed to make it fully functional will be completed soon. We are also reaching out to those outside of PPQ for their expertise. In addition to hiring another botanist to boost noxious weed identification capabilities, we have identified sources in foreign countries who can assist with identification of plants that are native to their countries or regions, but which may be considered noxious weeds here in the United States. Taking advantage of their knowledge and expertise will help us more rapidly identify any potential risk from plant or seed importations.

Internal communications was another important theme in the Safeguarding Review and it is something the PPQ Executive Team is fully committed to improving at every opportunity. PPQ is a very large organization with a widely scattered field force. Ensuring that people have the right information to do their jobs effectively is key to successful safeguarding. It is equally important to ensure that information about emerging issues is passed to those who need it and to ensure that good ideas are shared throughout PPQ. Late last year, PPQ entered into a contract with a firm that has both organizational development and organizational communications expertise. They are helping us to evaluate the various methods of internal communication we are currently using and will recommend to us ways that we can strengthen our internal communication.

One tool for improved internal communication was launched late last year. Because identifiers in PPQ are located in work units throughout the country, it is difficult to share information on important pest finds within the identifier community and with officers at ports throughout the Nation. Yet this information is critical to supporting our safeguarding mission by helping to target inspections on higher risk pests and commodities. A website was launched on the APHIS intranet to facilitate the exchange of information about pest identification in PPQ. In addition to providing pest alerts, the website contains a photographic guide to commonly intercepted pests and a photo gallery of exotic fruits and vegetables that have been intercepted at ports in the United States. There are several field keys and links to other websites containing important information for identifiers. To promote networking and information exchange among identifiers, there is a listing of the membership of the regional identifier groups and their officers. All of this information is updated on a regular basis.

Conclusion

It is clear that we have made great strides in our effort to implement the recommendations in the Safeguarding Review. But there is also much still to accomplish. Current concerns about increasing general border security and food security will provide unique opportunities as well as new challenges.

Having begun the process of change 2 years ago, we find ourselves in a much stronger position to meet those challenges and take advantage of those opportunities than we otherwise would have been. And the process of change that we embarked upon 2 years ago is now being emulated elsewhere in the organization. Our counterparts in APHIS Veterinary Services (VS) worked with the National Association of State Departments of Agriculture to conduct an Animal Health Safeguarding Review, which has now been presented to the Agency. Because PPQ carries out exclusion activities for animal products on behalf of VS, there are a number of recommendations in the animal health review that PPQ will work with VS to address. VS has invited PPQ to be part of its process as it begins the long journey toward change. We in PPQ are committed to helping VS strengthen their safeguarding activities and we reaffirm our commitment to continually improving our own. We share a common goal and, working together, we will build the strongest safeguarding system for American agriculture and plant resources that we can.