

Assessment of Collaboration for Incident Response Preparedness

January 25, 2008



A collaborative project among APHIS,
NASDA and other key State organizations



Executive Summary

Strategic alliances are an important way to achieve mutual goals and for organizations to gain benefits that could not be realized by individual efforts. Despite successful outcomes resulting from the long-standing alliance between APHIS and States related to incident preparedness and response, the strength of the alliances and especially the collaboration to support them have recently been called into question. This assessment of collaboration for incident response preparedness was itself a collaborative effort involving APHIS, NASDA and other members of the APHIS/State strategic alliance.

Data from surveys, interviews and listening sessions yielded four findings:

- People have different ideas and language about collaboration which affect the effectiveness of communication, activities, and the results of the collaboration.
- State and APHIS collaboration is imperative for incident response preparedness but neither APHIS nor State expectations about the needed levels of collaboration are being fully met.
- Within APHIS and within State organizations, strong internal collaboration is needed to guide and support successful strategic alliances.
- States and APHIS collaborate effectively, particularly where there are strong communication and relationship building skills; when these skills are lacking, productivity and progress suffers.

A working group of APHIS and State representatives reviewed the data and findings and developed specific recommended actions to address the issues raised in the assessment. The recommendations can be grouped by the following goal statements:

- APHIS and affected States must resolve the Emerald Ash Borer firewood issue.
- APHIS and States should clarify and write down roles and responsibilities.
- APHIS and States should institute good organizational practices that support collaboration.
- APHIS and States should each have a mechanism for issues to be raised, addressed and tracked when additional support is needed.
- APHIS and States should develop, document and monitor communication principles that support collaboration.
- APHIS and States should work to create a culture of collaboration across all boundaries.

While the group believes all the recommended actions are important, they suggest addressing the following issues first to capitalize on the momentum gained from the assessment and to demonstrate commitment:

- Affected parties must resolve Emerald Ash Borer firewood issue.
- APHIS, and State counterparts, should clarify and document roles and responsibilities for: 1) everyday work; 2) general incident response preparedness; and 3) specifically all hazards work especially pertaining to animal evacuation and sheltering and the role of the VS AEC.
- APHIS HQ, Regions, States and appropriate State counterparts need to commit to sharing information simultaneously. Protocols should be developed, documented, and enacted.
- APHIS, States and appropriate USDA officials should reaffirm the APHIS/COSDA protocol for public release of information (notifying states one hour prior). Document the protocol and share it uniformly.
- APHIS and States should discuss what National written guidelines for incident response are needed. They should be developed with State input and shared uniformly.
- APHIS Management Team should create a point of contact or liaison for States to contact with issues of concern. The first priority of this liaison is to catalog unresolved past issues, assist in bringing them to closure, and to document lessons learned.

NOTE: APHIS and NASDA would like to thank the National Plant Board, National Assembly of State Animal Health Officials, Association of Fish and Wildlife Agencies, and the Communications Officers of State Departments of Agriculture for their support and participation in this project.

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Common Acronyms Used in Study

AC	Animal Care
AEC	Area Emergency Coordinator
AFWA	Association of Fish and Wildlife Agencies
AI	Avian Influenza
AVIC	Area Veterinarian in Charge
AMT	APHIS Management Team
APHIS	Animal and Plant Health Inspection Service
AVMA	American Veterinary Medical Association
AWG	Assessment Working Group
BOAH	Board of Animal Health
BRS	Biotechnology and Regulatory Services
CBI	Confidential Business Information
CBP	Customs and Border Protection
CCC	Commodity Credit Corporation
COSDA	Communication Officers of State Departments of Agriculture
CPHST	Center for Plant Health Science Technology
DHS	Department of Homeland Security
DNR	Department of Natural Resources
EAB	Emerald Ash Borer
ESF	Emergency Support Function
EMLC	Emergency Management Leadership Council
FAD	Foreign Animal Disease
FEMA	Federal Emergency Management Agency
HQ	Headquarters
ICS	Incident Command System
IES	Investigative Enforcement Services
IT	Information Technology
LPA	Legislative and Public Affairs
LT	Leadership Team
MRP	Marketing and Regulatory Programs
NASAHO	National Assembly of State Animal Health Officials
NASDA	National Association of State Departments of Agriculture
NGO	Non-governmental Organizations
NIAA	National Institute for Animal Agriculture
NIMS	National Incident Management System
NPB	National Plant Board
OA	Office of the Administrator
PEM	Planning, Evaluation and Monitoring
PETS	Pet Evacuation and Transportation Standards
PIO	Public Information Officer
PPD	Policy and Program Development
PPQ	Plant Protection and Quarantine
SACS	Supervisory Animal Care Specialists
SART	State Animal Response Teams
SEMA	State Emergency Management Agency
SOP	Standard Operating Procedures
SPHD	State Plant Health Director
SPRO	State Plant Regulatory Official
USAHA	United States Animal Health Association
USDA	United States Department of Agriculture
VMO	Veterinary Medical Officer
VS	Veterinary Services
WS	Wildlife Services
WS SD	Wildlife Services State Director
State Agency Official	Refers to head or manager of Plant, Animal, Wildlife division/program/board/agency

Introduction

Strategic alliance and collaboration needed for response preparedness

The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS)'s mission is to protect the health and value of American agriculture and natural resources and States have similar, concurrent authorities and responsibilities. As part of that shared mission, APHIS and corresponding State officials are often called upon to respond to emergencies or incidents that threaten agricultural and natural resources, including both responding to direct threats and providing support during more general or "all hazards" incident responses such as hurricanes, large-scale fires and other natural or human-caused disasters. APHIS and State officials recognize that it is imperative to form strategic alliances through collaboration so everyone is better prepared to respond. A strategic alliance is a formal relationship between two or more parties to pursue agreed upon goals. The alliance strives for synergy where each partner hopes that the benefits from the alliance will be greater than those from individual efforts.

Efforts successful but resources recently stretched

To date, APHIS and State Agencies have a history of successful collaborative responses to animal and plant pest and disease outbreaks and are building successes in the area of all hazard response as well. Assuming conditions remain the same, there are no indications APHIS and States would not be able to respond to an incident. However, both sides understand that conditions are constantly changing. Recent incidents that have been very large in scope, size and complexity including the Exotic Newcastle Outbreak in 2003 and hurricanes Katrina and Rita in 2005 have stretched State and APHIS resources to the limit. These experiences have confirmed the need for principles and standards for incident response preparedness that are flexible, robust, and able to integrate APHIS and State personnel across multiple locations.

Incidents increasing in number and complexity

Added to the increasing complexity of incidents, is the increasing frequency of incidents as evidenced by the fact that in the years 1999-2005, APHIS has received approximately \$1.5 billion from Commodity Credit Corporation (CCC) transfers to respond to 21 different pest and disease infestations. In the previous seven years, APHIS received approximately \$115 million to respond to seven pest and disease infestations. Frequency and complexity show no signs of decreasing, so APHIS and State officials know safeguarding agricultural and natural resources will require better preparedness. Improving collaboration is one way to be better prepared.

This report summarizes the results of an assessment conducted to compare the expectations of State and APHIS officials for collaboration on incident response preparedness and to examine why the current reality does or does not meet their expectations. The assessment report concludes with recommendations to strengthen strategic alliances through improved collaboration to ultimately increase incident response preparedness.

This assessment examined expectations vs. reality

This assessment was conducted between September of 2007 and January 2008 by APHIS in partnership with the National Association of State Departments of Agriculture (NASDA), and other key State officials. APHIS' Policy and Program Development (PPD) staff coordinated this project and worked with an Assessment Working Group (AWG) to design data collection instruments and gather feedback on recommendations. The AWG was made up of APHIS and State representatives. (See Appendix 1 for a list of AWG members).

Methodology

Methodology included:

Surveys
Interviews
Listening Sessions
Focus Groups

APHIS PPD collected data by survey, individual and focus group interviews and listening sessions. The survey and interview questions were developed in conjunction with the AWG. Surveys were sent to APHIS and State personnel in all 50 states. A total of 529 survey responses were received, with an average response rate of 77.2% (range of 52.9% and 96.1%). In-depth interviews were conducted with 136 personnel in 12 purposefully chosen states. Additional data were collected through listening sessions with NASDA members and focus group interviews with the APHIS Management Team and the managers from the two APHIS regions. Interviews were also conducted with managers of the APHIS VS (Veterinary Services) and PPQ (Plant Protection and Quarantine) emergency staffs (See Appendix 1 for project plan, sample questions, states visited and positions of people who were interviewed).

Since collaboration is a term that means many things to people, and often not the same thing to different people, it was important for the purposes of the assessment to start off with a common definition of the term. Based on a review of strategic alliance literature and with the concurrence of the AWG, a collaboration continuum was developed and used as the basis for measurement in this assessment. The concept of collaboration is defined as a continuum, using a scale from completely independent (1) to completely collaborative (7) with points in between. Below in Figure 1 are the two endpoints of the scale.

COLLABORATION CONTINUUM	
Completely Independent (1)	Completely Collaborative (7)
<ul style="list-style-type: none"> • Separate development of plans, protocols, roles and responsibilities • No agreements, no joint plans or protocols • No joint work done • Rely on own authorities 	<ul style="list-style-type: none"> • Plans agreements and protocols jointly developed • Written joint plans, agreements and protocols • Plans and agreements have longer life span • Collaborators feel equal ownership • Fully accessible plans, agreements and protocols • Regularly reviewed and updated • Transparent mechanism to address need for out-of-cycle changes • Joint work is done in a formal way • Joint work proactively anticipates future needs • Gap analysis done jointly; jointly developed strategy for use of State and Federal authorities

Figure 1. Endpoints of the Collaboration Continuum

There is no value judgment placed on the numbers – some projects are best handled independently, some necessitate complete collaboration, while the ideal environment for other efforts may fall between the two extremes. Respondents organized themselves into four main communities as follows:

- Animal health includes State veterinarians, APHIS Veterinary Services (VS), State fish and wildlife, and APHIS Wildlife Services (WS);
- Plant health includes state plant regulatory officials, APHIS Plant Protection and Quarantine (PPQ), and APHIS Biotechnology and Regulatory Services (BRS);
- Animal sheltering and evacuation (all hazards) includes APHIS Animal Care (AC), APHIS VS, and State animal response teams (SART), veterinary reserve corps, and other similar organizations; and,
- General support includes APHIS management, as well as State offices of secretaries, directors and commissioners (including communications officers).

NOTE: Findings are presented by community in Appendices 2-5.

Findings

This assessment project found little to indicate APHIS and States would not be able to respond to incidents similar to those that have occurred to date. However, all parties recognize that the nature and complexity of incidents is changing and APHIS and States will need to be ready to meet new challenges. This examination of collaboration should help APHIS and States achieve the appropriate work environment to meet evolving demands. One of the main points to emerge from both the AWG and the data was that truly being prepared requires everyday work to be managed through strategic alliances, and the line between what is done on a regular basis and what is done only in an incident is increasingly blurry.

Collaboration is complex and involves others outside the scope of this assessment

To begin this assessment, respondents were asked to state who they see as their main collaborators for incident response preparedness and both State and APHIS respondents listed multiple agencies and internal units. The request to list collaborators demonstrated immediately the complexity involved in the strategic alliances needed for incident response preparedness. Even though the main collaborators usually were the counterparts (e.g., APHIS VS Area Veterinarian in Charge with State Veterinarian; PPQ's State Plant Health Director with State Plant Regulatory Official.) there were other collaborators mentioned. The non-traditional collaborators differed among States, and again highlighted the complexity involved in identifying collaborators.

In addition to their direct counterparts, most State agencies and APHIS programs see APHIS' Legislative and Public Affairs (LPA) as a main collaborator. Other main collaborators (in no particular order) included: State emergency management offices, State public health departments, Department of Homeland Security, State Foresters, industries (particularly poultry) and Boards of Animal Health, State Agriculture Departments, and State Departments of Natural Resources. There was very little, if any, cross over between animal and plant health communities in collaboration on incident response preparedness. In the plant health community, respondents were more likely to give multiple parts of PPQ as separate collaborators. For this assessment, the focus was on APHIS and corresponding State agencies.

The sheer number and variability of collaborators reflects how complicated it is to talk about collaboration on incident response preparedness with any one or multiple communities in APHIS and the States. The complexity of the incidents and scope of the responses now require strategic alliances to have many members from different organizations. This complexity is reflected in the conclusions offered on collaboration for incident response preparedness.

People have different ideas and language about collaboration, which affect the effectiveness of communication, activities, and the results of the collaboration.

Both APHIS and State respondents had a similar view of expectations and different view of the reality

All respondents were provided a collaboration continuum in an effort to reduce confusion over definitions of collaboration. Responses were categorized by levels, either none (1 on continuum), low (2-3 on continuum), medium (4-5 on continuum) or high collaboration (6-7 on continuum). However it was apparent in the findings that when respondents spoke about collaboration they frequently did not have the same understanding of the meaning of the term. Still, overall States and APHIS have a surprisingly similar collective view of expectations for the level of collaboration desired. See figure 2. Both APHIS and the States have a markedly different view of the current reality of the level of their collaboration with each other. See Figure 3.

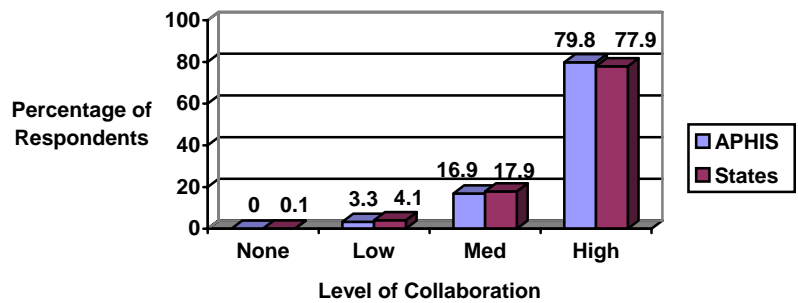


Figure 2: Percentage of Respondents and Levels of Expectations of Collaboration

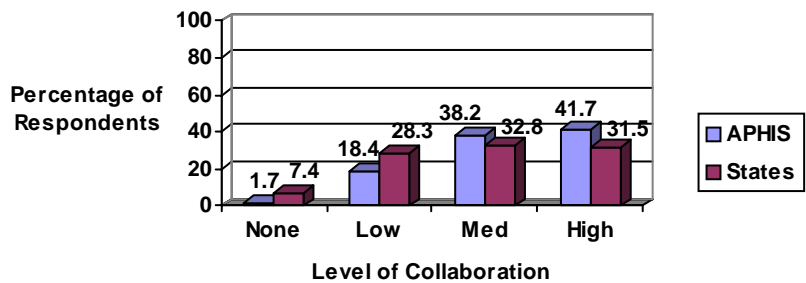


Figure 3: Percentage of Respondents and Current Perception of Level of Collaboration

Counterparts expressed inconsistent views of collaboration, in part because there isn't a common language

Responses to the survey and the interviews showed that State and APHIS personnel reference collaboration differently. For example, comments about good collaboration on plans included all of these: “we provided comments,” “they gave us comments,” “we reviewed their plan,” “we each have our own plan” and “we sat at the table together to work on the plan.” In some cases, State and APHIS counterparts expressed views that were inconsistent with each other. What is considered good collaboration and planning by one collaborator was often perceived as deficient by another collaborator. For example, one respondent who thought asking for comments was enough collaboration felt all was well but his/her counterpart who thought sitting at the table together was a more appropriate level of collaboration for planning felt the plan was not done collaboratively enough and did not reflect his/her “side.” Similar comments were noted across communities and topics, indicating potential for disappointment or frustration due to the lack of a common norm.

The normal challenges to communication are made that much more difficult and misunderstandings more likely when there is no common language to use to discuss collaboration. Different expectations may not impact everyday issues, however interviewees expressed that during a potentially stressful incident response, the lack of a common frame of reference could be an impediment. For example, developing response plans is a fairly concrete activity, with some existing guidance and understanding about content, format, and length. Yet even with that guidance and understanding in place, there were examples of misunderstandings and differences in the collaboration in the development of response plans.

Clarifying roles and responsibilities and communication protocols are especially important

The two areas that respondents say are especially important to collaborate on are clarifying roles and responsibilities in an incident and developing communication protocols. Both have been left for individual State and APHIS personnel to determine, and additionally, most interviewees indicated they are not written. This leaves potential for frustration and confusion, less-than-effective collaboration and finally, less-than-effective and -efficient incident responses.

Agreements need to be written

Results of both interviews and surveys show that everyone is in agreement that collaboration is important and needed in a response. Good collaboration is not possible when collaborators come from different reference points, have different expectations of themselves and each other, have different levels of comfort and satisfaction and do not take the time to discuss or resolve those differences. As in the example outlined above, it is easy to see from the data that a misunderstanding on response plans or about who is responsible for doing what could lead to stalled or ineffective responses to incidents.

State and APHIS collaboration is an imperative for incident response preparedness, but neither APHIS nor State expectations about the needed levels of collaboration are being fully met.

The acceptance of the idea that building strategic alliances through collaboration is an imperative for incident response preparedness is well documented outside this assessment by NASDA and APHIS. For example, APHIS says in its July 2007 update to its strategic plan that one of its guiding principles is to be collaborative: “We recognize

the need for, and wisdom in, working closely with our partners and stakeholders inside and outside the Agency to get results.” In its policy statement titled *Animal Health Protection and Disease Control*, NASDA acknowledges that “eradication of foreign animal diseases will require cooperative efforts of Federal and State governments, industry, and academia.”

Higher levels of collaboration are important for incident response preparedness

Most respondents in interviews and surveys believed that a high level of collaboration between States and APHIS is important for effective incident response preparedness. In fact, almost 80% of State and APHIS respondents say the level of collaboration should be high. The findings across all the communities indicate that respondents want a high level of collaboration with their State or APHIS counterpart and with their key collaborators internal to both States and APHIS (See Figure 1). There were no respondents who said that either APHIS or States should work on incident response preparedness completely independently.

State respondents think the current reality is farther from their expectations than APHIS

However results indicate most respondents view the actual level of collaboration as less than ideal. When comparing Figure 1 and Figure 2, the average overall differences between the different communities illustrates that the reality and the expectations are different. Although APHIS and State respondents both seem to want high levels of collaboration, State respondents think the current reality is farther from their expectations than APHIS respondents, indicating that while both groups have a different sense of the current level of collaboration, both are seeking a similar level.

Some of the key reasons why survey respondents and interviewees say their perceptions of the reality of the level of collaboration are different than their expectations include:

- Lack of simultaneous communication;
- Unclear roles and responsibilities (specifically—most are not in writing; need for clarity of the role of the AEC; lack of clarity about all hazards roles particularly regarding animal evacuation and sheltering);
- Need for communication protocols and those that exist are not in writing;
- Not sure response plans are consistent nationally as there are no national templates and no central approval process;
- Cooperative agreement process is too cumbersome; and,
- Test exercises programs are lacking (specifically--not enough exercises; participants can't afford to sponsor them; many of the exercises deal with disasters and not diseases or pests; not jointly developed; focused too much on AI (Avian Influenza) and not on other foreign animal diseases (FADs); too many exercises that take away from our day-to-day work).

Based on a review of strategic alliance and business literature, in order to be successful, collaboration must be seen as an imperative. The data above documents that APHIS and State respondents see collaboration in incident response preparedness as an imperative. However, there is work to be done on appropriate levels and expectations of collaboration. In some interviews, the idea was raised that levels of collaboration may not need to all be the same depending on the incident, the community or even the State, but all collaborators in the strategic alliance should be on the same page regarding the collaboration.

Within APHIS and within State organizations, strong internal collaboration is needed to guide and support successful strategic alliances.

When States see their communications with APHIS Regions and HQ as effective, the APHIS State-level manager feels left out; when States see communications with APHIS Regions or HQ as difficult, there were calls for more autonomy of APHIS State-level managers

Survey responses showed that both APHIS and States recognize that internal partnerships are important. When asked about their main collaborators, many interviewees cited internal programs right along with State or APHIS counterparts. Repeating a common theme, while respondents see these internal collaborations as important, their current perception of the level of collaboration is not meeting their expectations. Both State and APHIS respondents gave examples of problems created by breakdowns in internal relationships and communication.

State respondents say the secretaries, commissioners and directors are important internal collaborators yet the level of collaboration is not up to expectations. APHIS respondents cited problems with States internal communication when state veterinarians had not shared information with the secretaries, commissioners or directors of the state department of agriculture. This was particularly troublesome in states with separate boards of animal health as lines of authority are complex in these situations. In the cases discussed above, the strategic alliance in the State was adversely affected by problems with APHIS or State internal collaboration and communication. Respondents noted similar situations occurring within APHIS among regions and HQ and field level personnel.

Stronger internal collaboration needed among State organizations and State leadership

APHIS State level managers raised concerns about being left out of regional or headquarters communications with their State counterparts. For instance, when States found the collaboration with the regions and headquarters helpful and useful, the APHIS State level managers felt dismissed by their State counterparts. However, when the direct collaboration with the region or headquarters was frustrating, both State and APHIS counterparts called for more autonomy and often objected to the slowness and indecision of the region or headquarters personnel.

LPA collaboration not meeting expectations

Almost all respondents from APHIS and the States see APHIS LPA as an important collaborator. With the exception of WS, results indicated a difference between their expectations of the level of collaboration and the reality of that collaboration. Respondents suggested two main reasons: 1) LPA does not consistently follow through on the agreement with COSDA to provide information about media briefings at least one hour prior to APHIS or USDA releasing information to the media and holding a press conference, and 2) There is a perception that LPA does not provide APHIS or the States with the needed support for communication among headquarters, regions, State-level managers and State Agencies.

As mentioned earlier, in addition to animal and plant pest and disease-specific responses, APHIS and States are increasingly called upon to provide support in all hazards incident responses, such as hurricanes. Since APHIS is tasked with these responsibilities, State Agencies and State-level APHIS managers look to APHIS headquarters and regions to 1) provide general and specific guidance; 2) set the general direction for the collaboration; and 3) clarify the general roles and responsibilities that can then be worked out more specifically at the State level. In particular, while the all hazards arena is rapidly

evolving, APHIS needs to consistently provide information to all States and all involved employees regarding the current thinking and most recent updates. Lacking this guidance, there is vast variability among the efforts of APHIS employees and States' planning efforts.

APHIS Guidance:

State view

Best: Accuracy

Worst: Timeliness

On the survey, State and APHIS respondents were asked about the support they receive from regions and headquarters, in relation to guidance. Most State respondents were least satisfied with the timeliness of guidance from APHIS. In fact many of respondents and interviewees expressed dissatisfaction with the timeliness of many of actions taken by APHIS including providing guidance. Even though they were most satisfied with the accuracy of the guidance, the ratings reflect room for improvement in all aspects and levels of guidance. In general, State respondents were more satisfied with the guidance received during an incident than with the guidance in advance of an incident.

APHIS view

Best: Accuracy

Worst: Timeliness

Similar to the State respondents, APHIS State-level respondents were also least satisfied with the timeliness of guidance they receive from both regions and headquarters. They also expressed dissatisfaction with the timeliness of actions taken by regions and headquarters. While they were most satisfied with the accuracy of the guidance, their ratings of accuracy were lower than those of the State respondents. In general, APHIS respondents were more satisfied with the guidance from their regions than from their headquarters.

National consistency lacking

Even while acknowledging that preparedness and response systems are quite complex and that building them takes time, people we interviewed expressed frustration with the timeliness and clarity of working out general roles and responsibilities. Respondents say they are looking to APHIS for general guidance to provide consistency on what APHIS and States should be doing to prepare for and respond to incidents. Without this clarity, respondents say State level APHIS and State Agency personnel are left to prepare to respond independently, and as a result, national consistency suffers.

General frustration of the timeliness of APHIS action and clarity of roles and responsibilities

Respondents found this especially true for the area of animal evacuation and sheltering and other preparations for all-hazards emergencies. In APHIS, there is a general expectation that AC will play a major role, however the data shows that is unclear to respondents. Moreover, most State personnel who responded identify VS, and not AC, as their main collaborator on this issue.

General clarity needed for All Hazards, and the parameters of the AEC vs. ESF 11 coordinators

Finally, respondents and interviewees say that general clarity about APHIS' roles in all hazards emergencies is needed. Both APHIS and State personnel say they are confused about what the parameters for an all hazards emergency are and what the mechanism will be for responding. Already there is some inconsistency around the role of the VS AEC in preparing for and responding to all hazards emergencies. Some, for example, say they are assuming a role as organizer of the collaboration on ESF (Emergency Support Function) 11 type emergencies. This is occurring while APHIS is in the middle of staffing up and hiring people for positions that are called ESF 11 coordinators who may then add more confusion to the situation.

The importance of internal collaboration in strategic alliances is also documented in strategic alliance literature and business publications including the November issue of the Harvard Business Review. In this assessment, both the survey and interviews, with both APHIS and State personnel, show that internal collaboration is vital to the success of incident responses. While respondents found the accuracy of guidance satisfactory,

timeliness was consistently mentioned by all as needing improvement. Without clarity of the role of AC and the AEC, the response to an all hazard emergency is left to individual interpretation and frustrations are likely.

States and APHIS collaborate effectively, particularly where there are strong communication and relationship building skills; when these skills are lacking, productivity and progress suffers.

Even though there are differences expressed among respondents about the expected level of collaboration and the reality of that collaboration, there still was a sizeable population that said their current level or perception of reality of collaboration was high.

Respondents and interviewees say the reasons for those high levels of collaboration are the quality of the communication and the relationship. Those who don't think the current level of collaboration is at a high enough level also say that poor quality communication and relationships are the reasons the level is lower than desired. The text box to the right lists the keys to building quality communication and relationships based on comments from respondents and interviewees in this study.

Much work has been done in academic and business circles to document that the personal is as important as the procedural in assessing collaboration. This study supports that work showing how important interpersonal communication and relationship building are to collaboration and ultimately to incident response preparedness. Not only are good interpersonal dynamics important, it is also important that they be supported by good organizational practices.

For example, as previously mentioned, there are two areas that respondents said most needed high levels of collaboration: 1) understanding of roles and responsibilities in a response and 2) communication protocols. Respondents and interviewees suggested in both cases that after they are jointly developed, documenting them would be a good organizational practice that would support collaboration. Some other good organizational practices that would support communication and relationship building include the following suggested by respondents and interviewees:

Keys to building quality communication and relationships according to respondents

- Develop trust over time
- Get to know each other personally
- Develop a direct working relationship
- Have formal and informal interactions
- Share what you know
- Have frank conversations
- Have frequent meetings (regular briefings, monthly, task force, as needed)
- Know who and when to call (communication trees, personal relationships, etc.)
- Be in close proximity and accessible—easy to get a hold of, located close together (after hours availability)
- Understand roles and expectations
- Have a mutual understanding of goals
- Make direct calls to the person you collaborate with
- Don't "run over" your partner
- Have confidence in people
- Respect each other's knowledge and skills
- Learn from your experiences

High levels of collaboration are due to communication and relationships and problems with communication and relationships lead to problems with collaboration

Important for good organizational practices to support communication and relationships

- Whenever possible, APHIS should communicate simultaneously with State-

level APHIS and State agency officials including simultaneous e-mails and blanket invitations to conference calls. This helps to ensure everyone has access to the same information at the same time.

- Regions and headquarters should adopt protocols for communicating to keep everyone informed. For example, people understand that sometimes State personnel need to talk directly to APHIS regional or HQ personnel. When that happens, however, it is important for those regional or headquarters personnel to keep the APHIS State-level manager informed. The progress of that communication should be clear to both the State and APHIS managers in the States. In addition, all communication from regions and headquarters needs to be done faster.
- All communities of collaborators would like to see roles and responsibilities and communication protocols clarified where needed and then all of them written down. Two specific examples follow:
 - Plans for responding to all hazards emergencies need to be clear and shared more widely. This includes more clarity about roles and responsibilities of those involved in animal evacuation and sheltering.
 - Roles and responsibilities for using the Incident Command System in a response to a plant health incident need more clarity.
- Being collocated helps to encourage the kind of communication and relationships that respondents and interviewees say is important. There are three kinds of collocation mentioned that are seen as acceptable: 1) same building, 2) same area of a city or town, 3) same city or town. Being in the same state but different cities was not acceptable to respondents.
- Practicing and refining roles and responsibilities and communication protocols in test exercises supports and reinforces them, allowing participants to feel confident about responding.
- Collaborative accomplishments among State and APHIS counterparts helps with future collaborations.

The conclusions above illustrate and summarize the results of this assessment conducted to compare the expectations of State and APHIS officials for collaboration on incident response preparedness and to examine why the current reality does or does not meet their expectations. The assessment report concludes with recommendations to strengthen strategic alliances through improved collaboration so ultimately incident response preparedness improves.

Recommendations

The Assessment Working Group met to determine recommendations for APHIS and NASDA to address the report's findings and ultimately, enhance strategic alliances. The complete recommendations are not offered in any order of importance. However, in the interest of capitalizing on the momentum gained from this assessment and to demonstrate commitment, a subset of recommendations that the AWG determined to be most helpful to address first is included below.

- 1) APHIS and affected States must resolve Emerald Ash Borer firewood issue, including:
 1. Address unanswered questions raised.
 2. Provide regular updates even when nothing changes.

Assessment Working Group recommendations to be addressed first

3. Adopt practices to ensure similar incidents do not occur in future.

2) APHIS, at the National, Regional and State level, and State counterparts, including organizations such as NPB, AFWA, NASDA, and AFWA, should clarify and document roles and responsibilities for: 1) everyday work; 2) general incident response preparedness; and 3) specifically all hazards work especially pertaining to animal evacuation and sheltering and the role of the VS AEC.

3) Information should be shared simultaneously among APHIS HQ, Regions, State-level APHIS personnel, and appropriate State counterparts. Protocols should be developed, documented, shared and implemented uniformly within and between APHIS and States.

4) Reaffirm the APHIS/COSDA communication protocol for public release of information (notifying states one hour prior) within APHIS, States, and USDA. Document it and share uniformly with all parties. Include information about exceptions and how to handle them (e.g., APHIS provides additional support for answering media calls).

5) APHIS and States should discuss what National written guidelines for incident response (plant health, animal health, and all hazards) are needed. Guidelines should then be developed with input from States and shared formally and uniformly with all State counterparts.

6) APHIS Management Team should create a point of contact or liaison for States to contact with issues of concern. The first priority of this liaison is to catalog unresolved past issues, assist in bringing them to closure, and to document lessons learned. This liaison should have direct access to the Management Team members and program staffs.

Complete list of recommendations.

The following include a complete list of the recommendations made by the Assessment Working Group:

A. APHIS and affected States must resolve the Emerald Ash Borer firewood issue:

1. Address unanswered questions raised.
2. Provide regular updates even when nothing changes.
3. Adopt practices to ensure similar incidents do not occur in future.

B. APHIS and States should clarify and write down roles and responsibilities:

APHIS, at the National, Regional and State level, and State counterparts, including organizations such as NPB, AFWA, NASDA, and AFWA, should clarify and document roles and responsibilities for: 1) everyday work; 2) general incident response preparedness; and 3) specifically all hazards work especially pertaining to animal evacuation and sheltering and the role of the VS AEC.

C. APHIS and States should institute good organizational practices that support collaboration:

1. Regularly review positions and structures in plant and animal health

communities in both APHIS and States to ensure needs are being met and hold people accountable.

2. APHIS and States should discuss what National written guidelines for incident response (plant health, animal health, and all hazards) are needed. Guidelines should then be developed with input from States and shared formally and uniformly with all State counterparts.
3. Guidelines for roles and responsibilities grounded in authorities and clearly understood by the whole chain of command should be developed. Share them uniformly and widely with all APHIS programs and State counterparts.
4. APHIS should develop methods to work with States on response plans—direct support and creation of templates, offer approvals to existing templates or offer changes and grant approval to existing templates.
5. APHIS and States should continue implementation of sound emergency management systems (NIMS). For example: implement incident management protocols that support the dual statutory authority in both acute and long term responses and improve incident management skills at all levels; sponsor and hold test exercise programs; offer training to both APHIS and State counterparts; and critique responses to real emergencies and make timely recommendations to improve the programs.

D. APHIS and States should each have a mechanism for issues to be raised, addressed and tracked when additional support is needed:

1. APHIS Management Team should create a point of contact or liaison for States to contact with issues of concern. The first priority of this liaison is to catalog unresolved past issues, assist in bringing them to closure, and to document lessons learned. This liaison should have direct access to the Management Team members and program staffs.
2. APHIS programs should have a point of contact or liaison for dealing with unanswered questions and tracking of requests.
3. NASDA and other organizations should create a mechanism for assisting in raising and tracking issues between APHIS and States.

E. APHIS and States should develop, document and monitor communication principles that support collaboration:

1. Information should be shared simultaneously between APHIS HQ, Regions, State-level APHIS personnel, and appropriate State counterparts. Protocols should be developed, documented, shared and implemented uniformly within and between APHIS and States.
2. Communication should be transparent and consistent among and between State agency managers, APHIS State level managers, regional and HQ personnel.
3. Protocols for timely sharing of information between and among APHIS and State agencies should be discussed, developed, documented, and shared uniformly within and between APHIS and States.
4. Communication protocols specifically addressing confidential business information should be discussed, developed and shared between APHIS and States.
5. Needed internal communications policies should be discussed, documented, and shared uniformly with APHIS and States.
6. Reaffirm the APHIS/COSDA communication protocol for public release of information (notifying states one hour prior) within APHIS, States, and

USDA. Document it and share uniformly with all parties. Include information about exceptions and how to handle them (e.g., APHIS provides additional support for answering media calls).

7. Protocols for information sharing related to the laboratory networks should be discussed, developed, documented and shared uniformly with APHIS and States.
8. Evaluate use of joint information centers for information sharing during incidents, even long term incidents.

F. APHIS and States should work to create a culture of collaboration across all boundaries:

1. Develop policy statements and goals for collaboration between States and APHIS from the National level. Explain why collaboration is expected of State and APHIS personnel in everyday work and incident response. Include principles for collaboration such as trust and mutual respect.
2. Include collaboration as part of APHIS and State performance management systems to hold personnel accountable and to provide incentives for continued successful collaboration.
3. All collaborative endeavors should start with a discussion of definitions of common terms and should create a shared understanding of what level of collaboration will be used.
4. Exploit opportunities to model collaborative behavior. For example, include AFWA leadership at APHIS leadership meetings about incident response.
5. Regularly evaluate the collaboration component of collaborative programs.
6. Demonstrate sincerity about wanting to improve communication collaboration – Actions not promises.