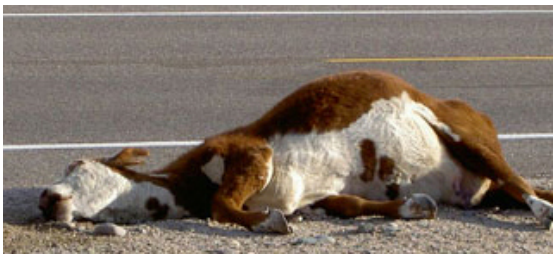
Lesson Plan

The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and a Coordinated Response

SART Training Media



The Threat of Agroterrorism and Bioterrorism in Florida - Prevention and a Coordinated Response

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ABOUT FLORIDA SART

SART, the Florida State Agricultural Response Team, is a multi-agency coordination group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery for the animal and agriculture sectors in Florida.

SART Mission

Empower Floridians with training and resources to enhance animal and agricultural disaster response.

SART Goals

- Promote the establishment of a coordinator in each county responsible for all agriculturally related incidents
- Provide assistance in the development and writing of county ESF-17 plans
- Promote the establishment of a county SART for each county
- Provide annual training for all SART and agriculturally-related personnel
- Identify county resources available for an emergency or disaster
- Promote county cooperation at a regional level for mutual aid

SUBJECT: Introduce participants to the possibility and threat of agroterrorism and bioterrorism in Florida.

GOAL: To provide participants with a basic understanding of the potential for agroterrorism and bioterrorism in Florida, and how citizens and government can organize for prevention and for effective response.

INTRODUCTION

This lesson plan and workbook are designed to be a part of the SART Training Module for *The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and a Coordinated Response*. This lesson plan gives the instructor direction for the educational portion of the workshop. The mechanics of planning, organizing and publicizing the entire training event are covered in the companion piece, *Toolkit for Planning a Community-Based SART Training Event*. For information on obtaining this publication, please refer to the resource section at the end of this publication.

This lesson plan is structured to provide an introductory overview to the possibility of agroterrorism and bioterrorism in Florida as well as the threat they potentially pose to Florida's agriculture, economy and way of life. It also briefly reviews a coordinated response by citizens and government agencies should an act of agroterrorism occur.

A PowerPoint Presentation has been created to accompany this lesson. Throughout the lesson, boxed references are placed in the left margin to indicate that PowerPoint slides are available to help illustrate the points being made.

Approximately one hour should be allocated for this program.

SESSION OUTLINE

PART 1 – BEGINNING THE WORKSHOP	(5 minutes)
PART 2 – A BRAVE NEW WORLD	(10 minutes)
PART 3 – FLORIDA, VULNERABLE SENTINEL STATE	(10 minutes)
PART 4 – PREVENTION AND RESPONSE	(10 minutes)
PART 5 – THE NATIONAL PLANT DIAGNOSTIC NETWORK	(10 minutes)
PART 6 – HIGHLIGHT AND KEY RESOURCES	(5 minutes)
PART 7 – SUMMARY & WRAP-UP	(10 minutes)

SPECIFIC LEARNING OBJECTIVES

At the end of this training module, participants will be able to:

1. Explain agroterrorism and bioterrorism.
2. Identify an example of agroterrorism and bioterrorism from history.
3. Explain how Florida may be vulnerable agriculturally, geographically and climatologically.
4. Identify likely agricultural threats should Florida specifically become a terror target.
5. Discuss the NPDN, National Plant Diagnostic Network.
6. Explain how Florida citizens and government can mobilize to prevent a terrorist act and how they may mount a coordinated response.

LEARNING ENVIRONMENT AND LEARNING AIDS

To complete this lesson plan, you will need:

- PowerPoint Presentation: *The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and a Coordinated Response*

- Optional – a companion publication, *The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and a Coordinated Response*

- *Optional: Participant Workbook*, is available with the PowerPoint slides and resource information.

- A companion publication (T-1) *Toolkit for Implementing a Community-Based SART Training Event* is available to help you organize, plan and present an entire SART training event with multiple training modules

- See the Resources section at the end of this publication to find out more about any of these materials.

To conduct this training unit, you will need:

- A means to show the PowerPoint Presentation: a computer with a projector (Note: Master black and white copies of the slides are included at the end of this manual if you prefer to use an overhead projector.)

- Sufficient seating for all participants

Each participant will need:

- A pen or pencil
- Participant workbook or paper for notes

BEFORE THE WORKSHOP

On the day of the workshop, check that equipment needed is in place. Double-check that the electronic media works properly with the equipment you have. Also, make certain that any materials such as paper, workbooks and pens/pencils are available in sufficient numbers for all participants.

PART 1: BEGINNING THE WORKSHOP

Time: 5 minutes

Focus: Explain the purpose of the workshop – Expand participants' understanding of the potential for agroterrorism (and bioterrorism) in Florida; how the state has mobilized to prevent it and cope with it should it occur; and how participants themselves can be involved in prevention

Once all participants have taken their seats and have settled down, welcome them to the workshop *The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and a Coordinated Response*. Thank them for attending and congratulate them on taking the time to learn about this extremely important issue. Remind them that the best way to respond to and recover from an emergency situation is to have a foundation of knowledge about available resources.

During this introduction, you may choose to distribute the Pre-Test included in the Resources section of this manual. The Pre-Test is a good way to determine the knowledge your audience currently possesses about agroterrorism and its potential threat in Florida. Make sure to communicate to the participants that their Pre-Test answers, right or wrong, are only meant to guide them through this learning experience. (Note: By design, the Pre-Test and Post-Test are the same.)

This lesson plan can be used with agricultural and non-agricultural audiences. At the end of this training module, participants will be able to explain agroterrorism and bioterrorism; identify a few examples of agroterrorism and bioterrorism from history; explain how Florida may be vulnerable agriculturally, geographically and climatologically;

identify likely agricultural threats should Florida specifically become a terror target; discuss the NPDN, National Plant Diagnostic Network; explain how Florida citizens and government can mobilize to prevent a terrorist act and how they may mount a coordinated response; and identify key resources that participants can easily access for additional information and assistance.

Remind attendees that the reason they are attending the workshop (and the training event if applicable) is because they realize the value of "understanding the enemy." This understanding is the basis for developing and implementing an emergency or disaster plan. They will carry the results of the workshop and training event with them everywhere.

Slides 1-6

This introduction should not exceed five minutes unless the Pre-Test is to be completed, in which case another few minutes may be required. This is a time when the participants are getting comfortable with the workshop they have decided to attend, their surroundings and you as the presenter. Simultaneously, you are becoming comfortable with the participants, the material you are presenting, and with being a presenter.

Pay attention to time as participants will want to learn what you have to present AND will want to depart on time. If you find that you are nervous when you start, understand that this is a natural response to public speaking. These "nerves" can make people ramble, talk faster or talk slower than normal, or even forget the time altogether. Nevertheless, even if participants enjoy what you are presenting, they will appreciate your discipline when the workshop ends on time.

PART 2: A BRAVE NEW WORLD

Time: 10 minutes

Focus: Identify how world now includes agroterrorism and bioterrorism, and the difference between the two

Earth has always been a messy and volatile place, but America's world changed the morning of September 11, 2001. We think of terrorism happening in the Middle East or in Asia, but on that day, foreign-born terrorists brought their troubles to the United States in a terribly dramatic and destructive manner.

Prior to that day, terrorism in America was homegrown and related to homegrown issues. On April 19, 1995 Timothy McVeigh and Terry Nichols set off a bomb in Oklahoma City that killed 168 people. McVeigh called it "retaliation" for an out-of-control government and cited incidents at "Ruby Ridge" and "Waco" for justification. Nevertheless, the effect was the same as the Moslem terrorists six and one-half years later – many innocent people dying.

Jolted by the 2001 attacks, the United States invaded Afghanistan, whose government had allowed the terrorist network to use their soil as a base. Soon afterward, and more controversially, our government invaded Iraq.

Slides 7-11

At home, a series of moves – development of the Department of Homeland Security and realignment of many government agencies and bureaus, for instance – were undertaken at all levels of government to create a strong security environment. We realized that the vast oceans around us were no longer our best defense from acts of terrorism.

Now we know that the possibility of attack is very real. Indeed, continued public utterances from al-Qaeda spokesman forecast more terrorist acts to come.

Reviewing the possibilities for attack, America's "soft underbelly" may be its vast and enormously productive agriculture industry. Indeed, several nations, including the United States, have long studied and experimented with agroterrorism and bioterrorism. (The 19th century of taking blankets from smallpox victims and shipping them to American Indian tribes comes immediately to mind.) The knowledge and technology are available.

Indeed, we talk as if every terrorist act is intentional, but in Florida we know that is not the case. Many acts and events causing terror among the population of the Sunshine State have apparently been unintentional. For instance, a thriving colony of tarantulas near Fort Pierce probably began when several pets were simply "thrown away." Kudzu appeared in the United States in 1876 and was thereafter vigorously promoted by private individuals and the Department of Agriculture's Soil Conservation Service. The unintentional spread of invasive plants, animals and insects now threatens to completely transform the ecology of Florida within a generation.

The effects of an agroterrorism event can be catastrophic for Florida. A serious outbreak of Asian longhorn beetle or citrus longhorn beetle could cost millions – perhaps billions – of dollars and negatively affect the lives of thousands of families in Florida.

Right now is the time to take stock of and prepare for the possibilities.

Agroterrorism

"Agroterrorism" may be defined this way: when any person knowingly or maliciously uses biological or chemical agents as weapons against the agriculture industry and food supply. It may also be thought of as the malicious use of plant or animal pathogens to cause disease in the agricultural sector – plants or animals.

A potential agroterrorist has many tools available, from viral agents to old-fashioned bacteria and fungus. The difficulty is effective dispersal of a biological agent and this may have prevented attacks to date. There was, however, suspicion that Fidel Castro's Cuba was involved in the spread of highly contagious citrus canker in Florida. Whether or not this is true, the effects of canker have certainly been severe.

Slides 12-18

Harm could be done by spraying or injecting food with chemicals. For a terrorist, the difficulty with this approach is that it is slow and small. Terror requires mass impact. Headlines. Slow is fine, but individual is not as sufficient as collective. Thus, a blanket laced with smallpox contaminates one or two individuals; a homicidal bomber may kill a dozen of one's enemy and injure a dozen more; but spraying a grove of oranges with psyllids infected with the bacteria for citrus greening (*Candidatus* Liberobacter) may cause immense harm to an entire industry and affect the lives of countless individuals.

An alternative to attacking an industry such as citrus or dairy cattle directly might be to harm something highly symbolic. Perhaps spreading the highly infectious viral foot-and-mouth disease among Florida's horse farms or at racetracks, expecting that it may spread to swine, sheep and even deer.

As a side note, agroterrorism can work, in a sense, in reverse … and have unintended consequences. Think of Napoleon's army advancing into Russia in 1812. The Russians destroyed everything in his path and the French starved. Think of the United States spraying powerful herbicides such as "Agent Orange" to defoliate thousands of square miles in Viet Nam from 1961-71. The "side effects" have been thousands of soft tissue cancers from dioxins in the herbicide.

To date, Florida has not experienced a definitive case of agroterrorism and the situation with citrus canker is nothing more than a thought-provoking rumor. Release of exotic organisms and their spread or demise has been accidental or perhaps an "act of God." Nevertheless, the potential to our agricultural infrastructure is immense.

Bioterrorism

A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals or plants.

Slides 19-21

These agents are typically found in nature, but it is possible that they could be manipulated in a laboratory to increase their ability to cause disease, make them resistant to current medicines, or to increase their ability to be spread into the environment.

Biological agents can be spread through the air, through water, or in food. Terrorists may use biological agents because they can be extremely difficult to detect and do not cause illness for several hours to several days. Some bioterrorism agents, like the smallpox virus, can be spread from person to person and some, like anthrax, cannot.

Although there is some overlap between agroterrorism and bioterrorism, the intent of agroterrorism is to attack and destroy the plant and animal infrastructure whereas the intent of bioterrorism is to threaten people directly with biological organisms.

PART 3: FLORIDA, THE VULNERABLE "SENTINEL STATE"

Time: 10 minutes

Focus: Identify how Florida's agriculture industry – plants and animals – is especially vulnerable by geography, climate and

Not only does Florida have more than 17 million residents, according to the Florida Tax Watch Center for Tourism, more than 75 million people visited the Sunshine State in 2002. Consequently, there are many tremendous and inviting targets.

Slides 22-24

Florida residents and visitors enjoy the state's unique geographic position, sub-tropical climate, and extraordinarily long and beautiful coastline. The "Sunshine State" enjoys 300 days of full sunshine each year and the peninsula ranges from temperate in the north to tropical in the south. Florida points like a finger from the mainland of North America into the Caribbean, pointing to the hundreds of tropical islands not far to the south.

Florida's unique position as a sub-tropical north-south peninsula between the Atlantic Ocean and the Gulf of Mexico allow it to serve as

a land vector for many exotic plants, insects and animals from virtually any location in the world. Few are beneficial; most are detrimental.

The Sentinel State

Florida is considered a "sentinel state," an early warning state. Its geographic position, climate; variety of ethnic groups; and diversity of agricultural industries, from horses to poultry to citrus and sugar cane, allow it to give warning to other farmers and ranchers in other states about the appearance of new or exotic and invasive species. Only the state of Hawaii hosts more invasive, noxious species than Florida.

Exotic species may be introduced from a foreign country – accidentally or on purpose – or from an adjacent. The Australian melaleuca tree, brought to the United States as an ornamental, now covers almost half-a-million acres of south Florida in an almost impenetrable, water-absorbing mass. It drives out every native plant and threatens to destroy the Everglades.

The "love bug" (*Plecia nearctica)* and the nine-banded armadillo (*Dasypus novemcinctus*) progressed from Mexico around the Gulf of Mexico into Florida. Both species are invasive and exotic. Pests, but not necessarily dangerous even though the armadillo has been found to harbor the bacteria (*Mycobacterium leprae)* that causes leprosy!

According to the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida in Gainesville, Florida is second in the United States only to Hawaii as host of invasive, exotic species such as the air potato (*Discorea bulbifera)*. Exotics are both harmful in their own right and cost millions of dollars to control. More than $25 million has been spent battling melaleuca in south Florida and the situation is now showing signs of improvement.

Slides 25-28

Clearwater, for instance, recently spent $1.87 million renovating the Allen's Creek area and one of the major concerns was the invasive air potato:

"The east cell area will be entirely cleared and grubbed 6 to 12 inches deep to remove the vines and tuber roots of the air potato. Then, selective herbicide applications and removal of new air potato will become part of the maintenance program. After several years, once the air potato is under control, the east cell will be planted with a combination of trees and plants."

A potential terrorist could loose a plague of toad and frogs on the state, but the giant toad is already well established in south Florida. Been there; done that.

The problem with animals is that they breed slowly and can often be isolated and dealt with individually, although this is certainly not the case with hundreds of non-native species that have arrived within the past century or so:

- 68 species are established: Populations are confirmed breeding and apparently self-sustaining for 10 or more consecutive years. Everything from the Puerto Rican Crested Anole to the carnivorous Nile monitor, Africa's largest amphibian (can grow to eight feet in length).

- 8 species are present and have been breeding but for less than 10 years.

- 97 species are present, but not confirmed to be breeding. The population persists only because of repeated introductions and/or escapes of individuals.

- 66 species have populations whose status is unknown, and

- 39 species were formerly present in Florida, but are no longer present.

Unless an escaped boa constrictor chokes down the family poodle, arthropods – loosely, insects – are probably the area of greatest biological concern. With insects, it is not the insect, per se, that is necessary dangerous. After all, the Asian citrus psyllid – a tiny, flying moth-like bug – will not be a significant pest. It does not bite humans, or not directly. These insects are vectors for disease, though, and once the insect becomes established – and it is considered established, though not widespread in Florida – the disease potential is present, for good. The citrus psyllid carries the bacteria that cause citrus greening, or *huanglongbing*, and this destructive disease is potentially devastating to Florida's citrus industry.

Vulnerability of Plant & Animal Industries

Slides 29-31

Florida has about 17 million residents and of them, an estimated 1 ¼ million work in agricultural-related sectors with livelihoods that are potentially threatened by an act of agroterrorism. These people produce $6.2 billion of market value agricultural products or about three-to-five percent of the agricultural products of the United States as a whole. Florida's top commodities are:

- cane for sugar products ($517 million)

- citrus ($1.17 billion)

- dairy products ($356 million)
- forestry products ($8 billion)
- greenhouse and nursery ($1.6 billion)
- and tomatoes ($508 million).

According to the Florida's Department of Agriculture and Consumer Services, Division of Animal Industry, our state's livestock inventory includes 26 million poultry, 1.5 million beef cattle, 350,000 horses, 140,000 dairy cattle, 100,000 swine, 30,000 goats, 10,000 sheep and millions and uncounted millions of pets. Introduced diseases such as hoof-and-mouth or avian influenza could potentially be devastating in these sectors and cause panic among the public.

Livestock and horse farms can be found anywhere in the state, from Pensacola to Miami. Some concentrations do exist, however. A large proportion of the horse farms and thoroughbred racehorse training centers are located in and around Marion County. And more dairy farms are located in the Suwannee River Valley and in Okeechobee County than anywhere else in the state.

The spread-out nature of Florida's animal industry – it is 800 driving miles from Pensacola to Key West – both protects it and renders it vulnerable. Such a distance cannot be effectively policed and yet a pathogen cannot easily or rapidly sweep through the state.

PART 4: PREVENTION AND RESPONSE

Time: 10 minutes

Focus: Examine organizational responses to the possibility of agroterrorism/bioterrorism and how participants can be a part

Slide 32

Ultimately we are individually and jointly responsible for our opinions and our actions. Because we are social animals, however, we organize for the common good. As the captain of the upside-down ocean liner Poseidon in the 2006 movie by the same name, Andre Braugher urges passengers to stay calm and stay put, that help is on the way. Kurt Russell and Josh Lucas doubt that and lead a small group through hazards to ultimate safety.

In a public emergency, you will be responsible for yourself and your family, but government, representing our social organization, is working to ensure the common safety. Let's take a look at Florida's organization to prevent agroterrorism.

Office of Bio and Food Security Preparedness

The Office of Bio and Food Security Preparedness is situated within Florida's Department of Agriculture and Consumer Services and reports to its commissioner, currently Charles Bronson.

Slides 33-34

Created in 2002, the Office of Bio and Food Security Preparedness helps protect Florida's citizens in regard to agroterrorism, bio-security, food security, and even domestic security issues. The office coordinates department preparedness activities by serving as liaison between divisions, offices, and programs. It also coordinates with local, state and federal agencies, private and government laboratories, and agriculture and food-related industries.

Since 9/11, the Office of Bio and Food Security Preparedness has used more than $17 million to prepare for and prevent agroterrorism events. New laboratories have been constructed with the objective of rapidly identifying and responding to emergencies, while others have been renovated. Border security has been upgraded to include interdiction missions – preventing harmful plants, animals and insects from reaching Florida soil – and numerous multi-agency and first-responder training sessions have been held. In addition to the above, the State Agricultural Response Team or SART has begun looking at the possibilities and developing strategies for meeting and preventing terrorist threats. (The SART mission goes far beyond agro- or bioterrorism however. SART helps communities prepare for such difficulties as hurricanes, chemical spills and outbreaks of avian influenza.)

Office of Agricultural Law Enforcement

The Office of Agricultural Law Enforcement is dedicated to protecting Florida's agriculture and its consumers through professional law enforcement.

Slides 35-37

Within the Office of Agricultural Law Enforcement the Bureau of Investigative Services handles cases involving unfair and deceptive trade practices against consumers, theft and related crimes against the state's agricultural industry, food safety, wildland arson investigations and protection of the state's natural resources. It enforces both criminal and civil violations.

The Bureau of Uniformed Services is the first line of defense at Florida's borders in protecting agriculture. The Bureau operates 22 agricultural interdiction stations located on every paved highway, crossing the natural boundary of the Suwannee and St. Mary's rivers. Agricultural vehicle inspections are conducted at each location around the clock, 365 days a year, by 175 law enforcement personnel.

These officers support and supplement regulatory and law enforcement programs by conducting inspections of highway shipments of agricultural, horticultural, aquacultural and livestock commodities. These regulations and programs ensure compliance with federal and state marketing agreements and various laws, rules and regulations implemented to provide the consuming public a quality food product and/or prevent, control and eradicate specific plant and animal pests and diseases which could economically devastate segments of Florida's agricultural industry. As Florida's second largest state industry, agriculture has an economic impact of $62 billion annually.

Slides 38-39

At our ports and airports, the US Department of Agriculture, as well as agencies such as the US Coast Guard and the Immigration and Naturalization Service from the US Department of Homeland Security have additional agroterrorism interdiction responsibilities. Florida can use this help because we have more coastline than any other state: 580 miles of general coastline on the Atlantic Seaboard and 770 miles on the Gulf Coast.

More on Domestic Security

Slides 40-41

Overall, Florida's domestic security strategy is conventional and the Florida Department of Law Enforcement heads the state initiative. It is designed to strengthen our domestic security prevention, preparedness, protection, response and recovery capabilities through interdisciplinary and interagency consensus and commitment to build and rely on a strong Regional Mutual Aid Response Capability.

PART 5: THE NATIONAL PLANT DIAGNOSTIC NETWORK

Time: 10 minutes

Focus: Introduce the National Plant Diagnostic Network and the southern sector headquartered at the University of Florida, Gainesville

Slides 42-43

The Animal & Plant Disease and Pest Surveillance & Detection Network was established by the United States Secretary of Agriculture. In June, 2002 he charged the Cooperative State Research, Education, and Extension Service (CSREES) with developing a network linking plant and animal disease diagnostic facilities across the country. The outcome, the National Plant Diagnostic Network (NPDN), focuses on the plant disease and pest aspect of that program. The network is a collective of Land Grant University plant disease and pest diagnostic facilities across the United States.

The mission of the NPDN is to enhance national agricultural security by quickly detecting introduced pests and pathogens:

- Through a functional nationwide network of public agricultural institutions.
- They have a cohesive system to quickly detect deliberately introduced, high consequence, biological pests and pathogens into our agricultural and natural ecosystems.
- They provide a means for quick identification with protocols for immediate reporting to appropriate responders and decision makers.

Slides 44-45

The network allows Land Grant University diagnosticians and faculty, state regulatory personnel, and first detectors to efficiently communicate information, images, and methods of detection throughout the system in a timely manner. Lead universities are designated as Regional Centers to represent five regions across the country. Regional Centers are located at Cornell University (Northeast region), Michigan State University (North Central region), Kansas State University (Great Plains region), University of Florida at Gainesville (Southern region), and University of California at Davis (Western region).

The National Plant Diagnostic Network database (DERIS) located at Purdue University is the central repository for archiving data collected from the regions.

Slides 46-48

The establishment of the network provides the means necessary for ensuring all participating Land Grant University diagnostic facilities are alerted of possible outbreaks and/or introductions and are technologically equipped to rapidly detect and identify pests and pathogens. This is accomplished by establishing an effective communication network between regional expertise, developing harmonized reporting protocols with the national diagnostic network

participants and cataloging pest and disease occurrences to be included in a national database.

The Florida Plant Diagnostic Network is establishing a base of volunteer "First Detector" participants to enhance monitoring the introduction of pests or unusual pest outbreaks. First detectors are an integral and terribly important part of the system and include: growers (farmers and ranchers), Cooperative Extension Service personnel, crop consultants and pesticide applicators, commercial chemical and seed representatives and Florida Master Gardeners.

Correct identification of unusual situations, plant conditions and pests, both animal and vegetable, are crucial and very difficult. Thus, a good working knowledge of some area of agricultural is a strong requirement for training and receiving the certificate of completion. Because they are agriculturalists, first detectors realize that taking the NPDN training means that, in an state of heightened awareness and understanding that international terrorists are sworn to strike the United States in any manner possible, it is no longer "business as usual." Attitudes change because first detectors may be called upon if there is an agroterrorist incident in their geographic area or in their particular area of expertise.

First detectors are natural multi-taskers. They are the men and women of American agriculture who serve their country in the finest traditions of free citizens. They serve because they can help and it is the right thing to do.

PART 6: HIGHLIGHT KEY RESOURCES

Time: 5 minutes

Focus: Identify key resources participants can easily access for additional information

Slides 49-50

This publication and other materials for SART training programs are available on the World Wide Web at www.flsart.org, the Web site of the Florida State Agricultural Response Team. Note: As new modules become available, they will be posted on the Web site.

United States Department of Agriculture (USDA)
http://www.usda.gov

USDA, Animal and Plant Health Inspection Service, National Center for Import and Export http://www.aphis.usda.gov/vs/ncie

Florida Department of Agriculture and Consumer Services (DOACS)
http://ww.doacs.state.fl.us

DOACS, Division of Plant Industry
http://www.doacs.state.fl.us/pi/

DOACS, Division of Animal Industry
http://www.doacs.state.fl.us/ai/

Florida State Agricultural Response Team
http://www.flsart.com

Integrated Pest Management, IFAS Extension, University of Florida
http://ipm.ufl.edu

Southern Region Center for Integrated Pest Management
http://www.sripmc.org

University of Florida, IFAS Extension Service
http://solutionsforyourlife.ufl.edu/

National Plant Diagnostic Network
http://www.npdn.org

Southern Plant Diagnostic Network
http://spdn.ifas.ufl.edu/

Florida Plant Diagnostic Network
http://fpdn.ifas.ufl.edu/

Extension Disaster Education Network
http://www.eden.lsu.edu

Congressional Research Service, The Library of Congress
"Agroterrorism: Threats and Preparedness" by Jim Monke, Analyst in

Agricultural Policy, August, 13, 2004
http://www.fas.org/irp/crs/RS32521.pdf

Centers for Disease Control and Prevention
http://www.cdc.gov

PART 7: SUMMARY, DISCUSSION & WRAP-UP

Time: 5-10 minutes

Focus: Review the learning objectives and encourage a commitment to SART

Slide 51

You and your audience have had a stimulating and practical 50 minutes, but it is almost over. Prior to answering any audience questions or comments, provide a summary to the participants of what they just learned:

1. Explain agroterrorism and bioterrorism
2. Identify an example of agroterrorism and bioterrorism from history
3. Explain how Florida may be vulnerable agriculturally, geographically and climatologically
4. Identify likely agricultural threats should Florida specifically become a terror target
5. Discuss the NPDN, National Plant Diagnostic Network
6. Explain how Florida citizens and government can mobilize to prevent a terrorist act and how it may mount a coordinated response

Thank the audience for their attention and participation. Congratulate them for their commitment to the SART endeavor and on their desire to understand the potential for agroterrorism and bioterrorism in Florida and how Floridians are preparing for prevention and response.

At this point, you may elect to have the participants take the Post-Test provided in the Resources section of this manual. Remember to review answers to the test questions after all participants complete the test.

A content-specific Evaluation is provided in the Resources section of the manual. The generic Evaluation available in the *Toolkit for Planning a Community-Based SART Training Event* can be utilized as well. As the presenter, you should decide which evaluation best meets the needs of your situation. Please have participants complete an evaluation at the conclusion of this module. Encourage participants to be as honest and forthright as possible as it helps you, the presenter, make adjustments as necessary for future presentations, which in turn benefits future participants.

PARTICIPANT EVALUATION

The Threat of Agroterrorism and Bioterrorism in Florida – Prevention and A Coordinated Response

Please circle the number that best expresses your opinions about the following statements.

		Fully Disagree	Disagree	Neutral	Agree	Fully Agree
1.	The training module's format was appropriate.	1	2	3	4	5
2.	The information presented is useful to me.	1	2	3	4	5
3.	The time it took to complete this module was acceptable.	1	2	3	4	5
4.	I clearly understand why Florida is considered a "sentinel state."	1	2	3	4	5
5.	The similarities and differences between agroterrorism and bioterrorism were explained.	1	2	3	4	5
6.	It was clearly explained that the potential agroterrorism in Florida is high.	1	2	3	4	5
7.	The role of the National Plant Diagnostic Network was explained, as was its role in training "first detectors."	1	2	3	4	5
8.	I understand the role of "first detectors" in the prevention of agroterrorism and would consider taking first detector training.	1	2	3	4	5
9.	Available up-to-date resources were clearly outlined.	1	2	3	4	5

We welcome your comments about this program:

Please use the back of this sheet for any further comments.

Thank you for your time!

PARTICIPANT PRE-TEST/POST-TEST

1. (True or False) The United States has never participated in planning, developing or carrying out acts of agroterrorism or bioterrorism.

2. The essential difference between agroterrorism and bioterrorism is _____ .

Slides 52-54

3. (Yes or No) The accidental release into the fragile Florida ecosystem of a pet snake that one can no longer care for should be prosecuted as an act of bioterrorism.

4. Florida is called a "sentinel state" because _____

_____ .

5. Which of the following Florida industries is considered *immune* to an attack by an agro-terrorist?

   A. Citrus industry (too wide-spread)
   B. Cattle and horse industries (animals are just impossibly difficult)
   C. Nursery industry (nope – species confusion)
   D. Vegetables (would take an airplane and no one would do that …)
   E. All are possible targets as well as timber and even pets!

6. Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs is the mission of which of the following Florida offices?

   A. Office of Safety and Wholesomeness of Food
   B. Office of Bio and Food Security Preparedness
   C. Office of Other Consumer Nuisance Regulations

7. (Yes or No) The 24/7 toll free telephone number of Florida's Agriculture Law Enforcement office is **1-800-342-5869** and you should call it right away if you suspect any case of or issue with agro- or bio- terrorism. (Hint. The correct answer is "Yes." Please remember this number!)

8. (Circle the correct answer) The National Plant Diagnostic Network is responsible for training which of the following volunteer guardians of America's agriculture industry.

   A. First Responders
   B. First Detectors
   C. First Decorators

9. Which of the following may not be an objective of a trained terrorist?

   A. To cause fear and insecurity
   B. To make a "political or economic statement"
   C. To cause harm to the enemy's infrastructure
   D. All of the above may be terrorist objectives

10. On a scale of 1 to 10, one being very uneasy and apprehensive, and ten being rock-solid safe and secure, I feel that Florida is well-prepared for a possible bioterror or agroterror event. _____

TEST ANSWER KEY

1. False

2. It is instructive to think of bioterror as specific acts directed at individuals, crowds or populations, such as sending anthrax spores through the mail. Agroterror is a general act, intending to sew death, destruction and dismay by indirect means, such as introducing a plant virus that may take years to become destructive to a host industry.

Slides 55-56

3. This is an opinion question and one could argue all sides of the issue.

4. Florida is a "sentinel state" because it is uniquely situated by climate and geographic position to host exotic and harmful immigrants.

5. #E. All are possible targets as well as timber and even pets!

6. #B. Office of Bio and Food Security Preparedness

7. The 24/7 toll free telephone number of Florida's Agriculture Law Enforcement office is 1-800-342-5869 and you should call it right away if you suspect any case of or issue with agro- or bio- terrorism.

8. #B. First Detectors.

9. #D. All of the above may be terrorist objectives.

10. This too is an opinion question and there is no right or wrong answer. It is entirely personal. However, if you have an idea that you believe will make America stronger or more vigilant without sacrificing our free and democratic way of life, please write that idea on the answer sheet!

GLOSSARY

Slide 57

Agroterrorism: when any person knowingly or maliciously uses biological or chemical agents as weapons against the agriculture industry and food supply. It may also be thought of as the malicious use of plant or animal pathogens to cause disease in the agricultural sector – plants or animals.

Bioterrorism: The deliberate release of viruses, bacteria, other germs or chemicals to cause illness or death in people, animals, or plants.

First detector: A volunteer who has been trained and certified in the techniques of recognizing invasive or introduced pests and plants and whose first alert will help quarantine and eliminate them.

SART: The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery for the animal and agriculture sectors in Florida.

Slides 58-59

Terrorist: One who utilizes violence and intimidation systematically to achieve political objectives, while disguised as a civilian non-combatant. The use of a civilian disguise exempts the perpetrator from protection under the Geneva Conventions, and consequently if captured they are liable for prosecution as common criminals.

PowerPoint Slides

Slides 1 – 6

Agroterrorism & Bioterrorism

State Agricultural Response Team 2

Agroterrorism & Bioterrorism Prevention & Response

Prepared by

Amanda Hodges, PhD
Southern Plant Diagnostic Network, University of Florida
Funded by Cooperative State Research, Extension and Education Service (CSREES), USDA
Rick Sapp, PhD
Florida Department of Agriculture and Consumer Services
Florida SART Technical Writer

State Agricultural Response Team 3

Acknowledgements

- US Dept. of Health & Human Services, Centers for Disease Control and Prevention
- American Veterinary Medical Association
- US Dept. of Interior, US Geological Survey
- University of Florida, Institute of Food & Agricultural Sciences
- University of California, Agriculture & Natural Resources; Mississippi State University Extension Service; University of Texas, Dr. Philip Varghese, Fluid Mechanics
- Florida Fish & Wildlife Conservation Commission
- Susan Halbert, PhD; Gail Wisler, PhD; Gerald Holmes, PhD, North Carolina State University; Jim Stack, PhD, Kansas State University; R. Winstead, Adolph Northern, Lee Island Coast CVB, University of North Dakota, Long Lake Fishing Club; Theadore Wells, Stanton, Texas

State Agricultural Response Team 4

Learning Objectives

1. Explain agroterrorism and bioterrorism
2. Identify examples of agroterrorism and bioterrorism from history
3. Explain how Florida may be vulnerable agriculturally, geographically and climatologically
4. Identify likely agricultural threats should Florida specifically become a terror target
5. Discuss the NPDN, National Plant Diagnostic Network
6. Explain how Florida citizens and government can mobilize to prevent a terrorist act and how they may mount a coordinated response

State Agricultural Response Team 5

Florida SART

- Multi-agency coordination
  - Governmental and private
  - All-hazard preparation, response and recovery
  - Animal and agricultural

State Agricultural Response Team 6

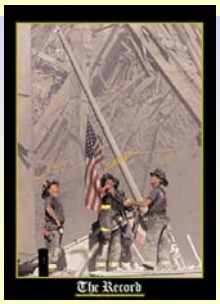
PowerPoint Slides

Slides 7 – 12

What's the rush?

The aftermath of 9/11

- Department of Homeland Security (DHS) was officially formed in November 2002
- Americans realize that oceans and distance are no longer our protection from the wider world as terrorist cells are discovered in the US, Canada and around the world
- Begin to evaluate possibilities of attack, develop a "threat matrix" which includes bioterrorism and agroterrorism



State Agricultural Response Team 7

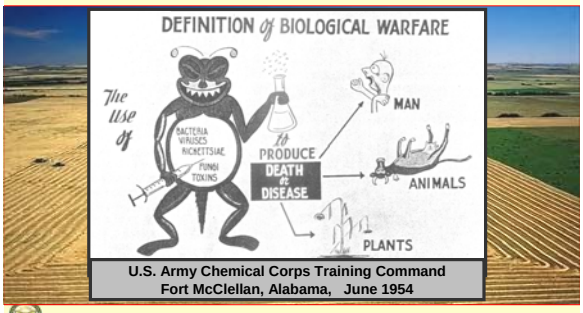
Wake-Up Calls

9/11 – Foreign: 19 foreign nationals associated with al-Qaeda hijack and crash four airliners in the U.S. Almost 3,000 people die in the attacks and the effects appear to be permanent.

4/95 – Domestic: Security Camera shows Timothy McVeigh's rented Ryder truck arriving at the Alfred Murrah Federal Building in Oklahoma City. 168 confirmed deaths in the explosion of agricultural fertilizer and motor oil. McVeigh calls it "retaliation" not terror.

State Agricultural Response Team 8

The Threat is Real



U.S. Army Chemical Corps Training Command
Fort McClellan, Alabama, June 1954

State Agricultural Response Team 9

Intentional … or not

State Agricultural Response Team 10

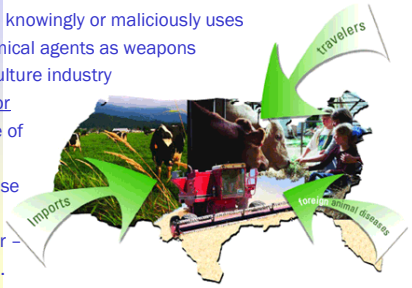
An Agroterrorism Event Estimated Costs (Intentional or not)

- $1.8 billion for slaughter of animals
- $1.0 billion to disinfect farms
- $658 million for livestock disposal
- $78 million for business recovery
- $21 million for marketing support
- $4 billion loss for agriculture industry
- A 20% loss to the state's $107 billion tourism industry

State Agricultural Response Team 11

What is "agroterrorism?"

When any person knowingly or maliciously uses biological or chemical agents as weapons against the agriculture industry and food supply or the malicious use of plant or animal pathogens to cause disease in the agricultural sector – plants or animals.

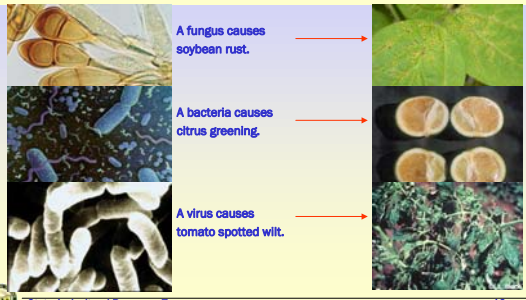


State Agricultural Response Team 12

PowerPoint Slides

Slides 13 – 18

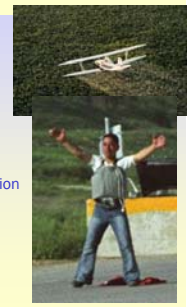
Little Things … Big Problems



State Agricultural Response Team 13

Possible Delivery Source

- **Point Source Delivery**
  - Letter or Package
  - Sprayer
- **Vectors**
  - United States experiments with Yellow Fever spread by infected mosquitoes
  - Japanese use plague infected fleas in China
- **Upwind Line Delivery**
  - Highly modified crop duster or rooftop dispersion
  - Issues of inversion and dilution
- **Human Carrier**
  - "Person-to-person" – Suicidal Delivery
  - Only certain agents are transmissible (Pneumonic Plague, Smallpox)



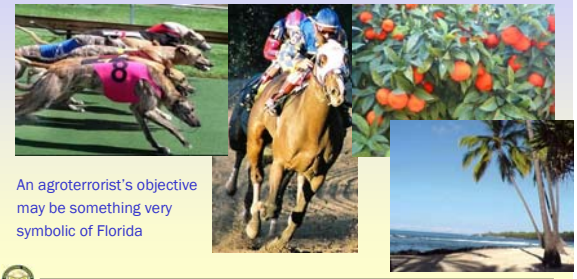
State Agricultural Response Team 14

The Agroterrorist's Objective

- Attack our food supply and create shortages
- Cause us to fear, to lose faith and confidence
- An indirect form of attack and aggression

State Agricultural Response Team 15

The Agroterrorist's Objective



An agroterrorist's objective may be something very symbolic of Florida

State Agricultural Response Team 16

Agroterrorism
(In reverse and with unintended consequences)

1812: French Emperor Napoleon Bonaparte invades Russia with 610,000 troops. They are defeated by weather and Russians "scorched earth" policy: 600,000 die. (Painting by Adolph Northern, 19th century.)

1961-71: The United States uses herbicides such as "agent orange" in Viet Nam. The purpose is to serve as a defoliant and destroy enemy crops. Unfortunately, side effects are a dramatic increase in soft-tissue cancers.

State Agricultural Response Team 17

Florida's Agroterrorism Experience

Florida has had no known intentional case of agroterrorism to date. The potential is huge, however. Most cases of invasive, destructive plants, animals and insects have either been accidental or "acts of God."

Water hyacinth: introduced in 1800s.

Soybean rust - probably blown to the US from Venezuela by Hurricane Ivan in 2004.

State Agricultural Response Team 18

PowerPoint Slides

Slides 19 – 24

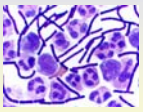
What is "bioterrorism?"

The deliberate release of viruses, bacteria, other germs or chemicals to cause illness or death in people, animals, or plants.

State Agricultural Response Team 19

Bioterrorism

- More than 1,000 microbiological libraries worldwide, naturally occurring disease and national bio-weapons programs, there are ample sources from which agents can be obtained
- Two weapons categories
  - Disease-causing organisms such as bacteria, viruses and prions
  - Toxic substances produced by or from living organisms such as bacterial toxins, fungi and molds, plant extracts and animal toxins



State Agricultural Response Team 20

What's the difference?

Although there is some overlap, the intent of agroterrorism is to attack and destroy the plant and animal infrastructure while the intent of bioterrorism is to threaten people directly with biological organisms.

Agroterrorism

Few known significant, successful historical examples, but plenty of opportunity.

Bioterrorism - September 2001

Letter to Senator Tom Daschle contained anthrax powder. It killed two postal workers.

State Agricultural Response Team 21

Where Florida is Vulnerable

17 million residents are crowded into the Florida peninsula and more than 75 million visit each year!

State Agricultural Response Team 22

Florida "Climate-Receptive"

- Nickname is the *Sunshine State* for its average of 300 days of full sunshine per year
- One of every climate zone
  - Tropical in Florida Keys
  - Sub-tropical South Florida
  - Temperate North Florida
- Thus receptive to almost any plant, animal, insect or disease from any location in the world

State Agricultural Response Team 23

Florida and The World

State Agricultural Response Team 24

PowerPoint Slides

Slides 25 – 30

Florida – A "Sentinel State"

- Florida is a "Sentinel State"
  - A constant invasion of exotic species
    - Not native to the Florida or North American eco-system
    - Causes harm to or has potential to cause harm to the environment
  - Can be a native American species that has invaded a new area or crop or from Africa or Asia or even from another world!


Love bugs

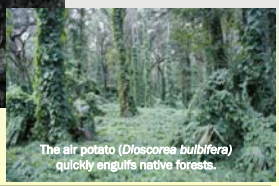

Armadillo


Melaleuca

Florida's Exotic Plants

Florida is home to thousands of exotic, non-native plants, animals and insects. The net effect is seriously detrimental to the state's environment.

Melaleuca quinquenervia: rapidly destroying Florida's Everglades.


The air potato (*Dioscorea bulbifera*) quickly engulfs native forests.

Florida's Exotic Animals


From South America, the giant toad is a voracious feeder, highly toxic and well-established.

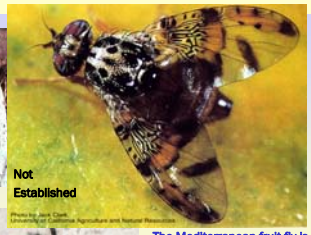

The Rhesus monkey is considered established in Florida.


The Florida Fish and Wildlife Conservation Commission now considers the Burmese Python to be established and its range is expanding in the state.

Florida's Exotic Arthropods


Established

One of Florida's newest residents is the Africanized honeybee or "killer bee."


Not Established

The Mexican Red-Rump Tarantula is now established near Fort Pierce.

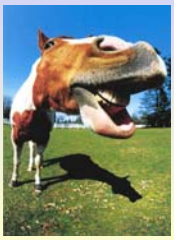

Established

The Mediterranean fruit fly is potentially devastating to the Florida citrus industry.

How Florida is Vulnerable - Plants

- 1.25 million residents earn livings in agriculture producing billions in market value crops
- A $6.2 billion industry (direct and indirect impact: Second only to tourism: provides 75% of United States winter produce)
- Florida's top agricultural sectors:
  - Cane for sugar
  - Citrus
  - Dairy
  - Forest products
  - Greenhouse/nursery products
  - Tomatoes

How Florida is Vulnerable - Animals



- 26 million poultry
- 1.5 million beef cattle
- 350,000 horses
- 140,000 dairy cattle
- 100,000 swine
- 30,000 goats
- 10,000 sheep
- Millions and millions of pets

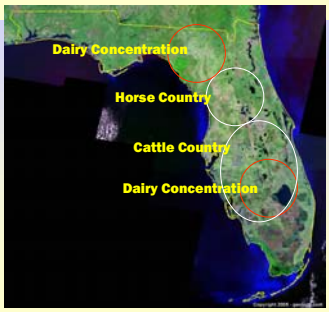
PowerPoint Slides

Slides 31 – 36

Farm and Ranch Concentrations

Throughout the state, but concentrated in

- **Horses**: Marion County
- **Dairy**: Suwannee River Valley and Okeechobee Area
- **Cattle**: South Central Area



State Agricultural Response Team 31

Be Prepared!

Who is ultimately responsible for protecting you, your family, your community and your way of life?

State Agricultural Response Team 32

Prevention and Response

Office of Bio and Food Security Preparedness

- Mission: to ensure the safety and wholesomeness of food and other consumer products through inspection and testing programs
- Created in 2002, is responsible for protection of Florida citizens
- Coordinates response of Florida Department of Agriculture & Consumer Services (FDACS)
- Coordinates with local, state and federal agencies; private and government laboratories; agriculture/food industries
  - Federal: USDA, FDA, CDC, FBI
  - State: FDOH, FDLE, FDEP, IFAS

State Agricultural Response Team 33

Prevention and Response

Office of Bio and Food Security Preparedness

- Since 9/11 has spent more than $17 million to prepare for and prevent agroterrorism events
  - Laboratory construction, renovation and upgrades
  - Additional border protection for agricultural interdiction
  - More than 15 major training and coordination events
  - Development of SART, State Agricultural Response Team

State Agricultural Response Team 34

Prevention and Response

Office of Agricultural Law Enforcement

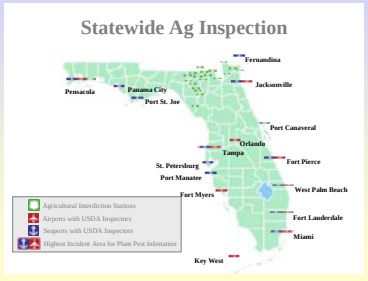
- Within Florida Department of Agriculture & Consumer Services (FDACS)
- Dedicated to protecting Florida's agriculture and its consumers through professional law enforcement

Helping protect against the spread of "citrus greening"

Guarding against "mad cow" disease (*bovine spongiform encephalitis*)

State Agricultural Response Team 35

Prevention and Response



State Agricultural Response Team 36

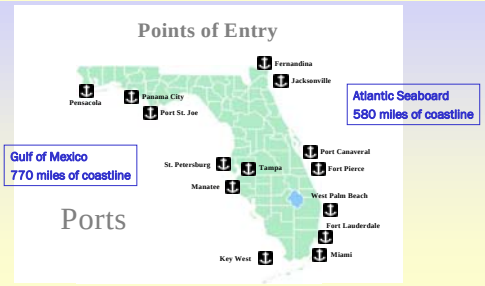
PowerPoint Slides

Slides 37 – 42

Prevention and Response

State Agricultural Response Team 37

Where Florida is Vulnerable



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Where Florida is Vulnerable

State Agricultural Response Team 39

Domestic Security

Cornerstones of National and State Effort

- Prepare first responders
- Improve information, intelligence and technology capability
- Enhance public health capacity and bio-terrorism defenses
- Protect Florida's borders

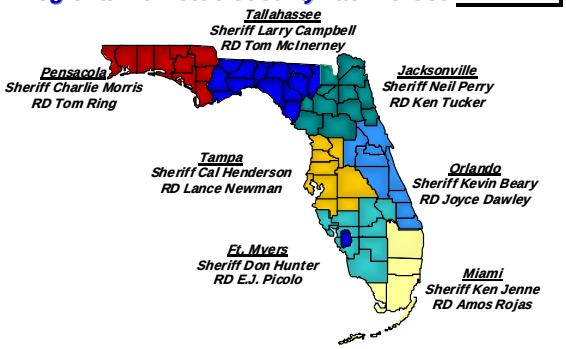
PREVENTION MITIGATION RESPONSE RECOVERY

7 REGIONAL DOMESTIC SECURITY TASK FORCES

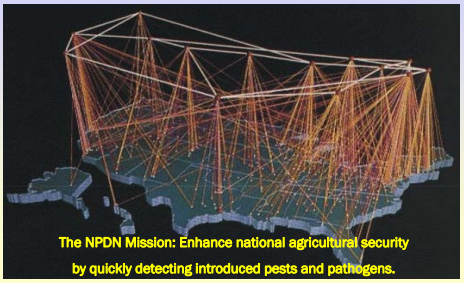
State Agricultural Response Team 40

Florida's Domestic Security Structure

Regional Domestic Security Task Forces



NPDN: National Plant Diagnostic Network



State Agricultural Response Team 42

PowerPoint Slides

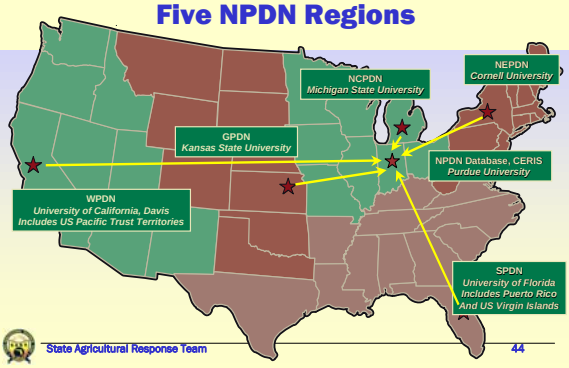
Slides 43 – 48

The NPDN Role

- Enhanced security of America's agricultural sector from a biosecurity event or unintentional introduction.
- How is this accomplished?
  - Coordinated national diagnostic laboratories
  - Rapid communication and response system
  - Database analysis for event detection
  - Education and training of "first detectors"

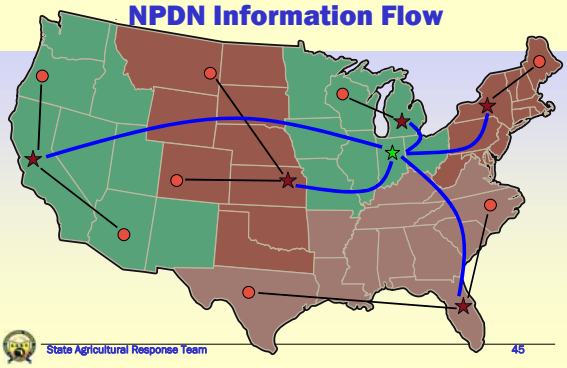
State Agricultural Response Team 43

Five NPDN Regions



State Agricultural Response Team 44

NPDN Information Flow



State Agricultural Response Team 45

What is a "First Detector?"

- What is a First Detector?
  - Anyone likely to encounter an act or suspected act of bio- or agroterrorism
    - Producer: farmer or rancher
    - Agricultural consultant
    - County Extension Agent or Forester
    - Agents of the State Department of Agriculture & Consumer Services
    - Florida Master Gardeners

State Agricultural Response Team 46

What does a "First Detector" do?

- Training, certificate of completion and national registry
- Surveillance
  - Be alert to the odd or different
  - Change in attitude from business as usual to potentially important
  - May be contacted if an incident in their area

State Agricultural Response Team 47

"First Detectors" – Natural Multi-Taskers

State Agricultural Response Team 48

PowerPoint Slides

Slides 49 – 54

Key Resources

- United States Department of Agriculture (USDA) www.usda.gov
- Florida Department of Agriculture and Consumer Services (FDACS) www.doacs.state.fl.us
- FDACS-Division of Plant Industry www.doacs.state.fl.us/pi/
- FDACS Division of Animal Industry www.doacs.state.fl.us/ai/
- USDA, Animal and Plant Health Inspection Service, National Center for Import and Export www.aphis.usda.gov/vs/ncie/
- Florida State Agricultural Response Team www.flsart.com
- Integrated Pest Management, IFAS Extension, University of Florida http://ipm.ufl.edu/
- Southern Region Center for Integrated Pest Management www.sripmc.org
- University of Florida, IFAS Extension Service http://solutionsforyourlife.ufl.edu/

Key Resources

- National Plant Diagnostic Network www.npdn.org
- Southern Plant Diagnostic Network http://spdn.ifas.ufl.edu/
- Florida Plant Diagnostic Network http://fpdn.ifas.ufl.edu/
- Extension Disaster Education Network
  - www.eden.lsu.edu
- Congressional Research Service, The Library of Congress "Agroterrorism: Threats and Preparedness" by Jim Monke, Analyst in Agricultural Policy, August, 13, 2004
  - www.fas.org/irp/crs/RS32521.pdf
- Centers for Disease Control and Prevention www.cdc.gov

Working Together To Protect Florida's Agriculture & Way of Life

Thank You!

Now, Test Your Knowledge and Awareness (1 of 3)

1. (True or False) The United States has never participated in planning, developing or carrying out acts of agroterrorism or bioterrorism.
2. The essential difference between agroterrorism and bioterrorism is _____ .
3. (Yes or No) The accidental release into the fragile Florida ecosystem of a pet snake that one can no longer care for should be prosecuted as an act of bioterrorism.
4. Florida is called a "sentinel state" because _____ .
5. Which of the following Florida industries is considered *immune* to an attack by an agro-terrorist?
   1. Citrus industry (too wide-spread)
   2. Cattle and horse industries (animals are just impossibly difficult)
   3. Nursery industry (nope – species confusion)
   4. Vegetables (would take an airplane and no one would do that …)
   5. All are possible targets as well as timber and even pets!

Pre/Post Test (2 of 3)

6. Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs is the mission of which of the following Florida offices?
   1. Office of Safety and Wholesomeness of Food
   2. Office of Bio and Food Security Preparedness
   3. Office of Other Consumer Nuisance Regulations
7. (Yes or No) The 24/7 toll free telephone number of Florida's Agriculture Law Enforcement office is **1-800-342-5869** and you should call it right away if you suspect any case of or issue with agro- or bio- terrorism. (Hint. The correct answer is "Yes." Please remember this number!)
8. (Circle the correct answer) The National Plant Diagnostic Network is responsible for training which of the following volunteer guardians of America's agriculture industry.
   1. First Responders
   2. First Detectors
   3. First Decorators

Pre/Post Test (3 of 3)

9. Which of the following may not an objective of a trained terrorist?
   1. To cause fear and insecurity
   2. To make a "political or economic statement"
   3. To cause harm to the enemy's infrastructure
   4. All of the above may be terrorist objectives
10. On a scale of 1 to 10, one being very uneasy and apprehensive, and ten being rock-solid safe and secure, I feel that Florida is well-prepared for a possible bioterror or agroterror event. _____

PowerPoint Slides

Slides 55 – 59

Test Answer Key (1 of 2)

1. False
2. It is instructive to think of bioterror as specific acts directed at individuals, crowds or populations, such as sending anthrax spores through the mail. Agroterror is a general act, intending to sew death, destruction and dismay by indirect means, such as introducing a plant virus that may take years to become destructive to a host industry.
3. This is an opinion question and one could argue all sides of the issue.
4. Florida is a "sentinel state" because it is uniquely situated by climate and geographic position to host exotic and harmful immigrants.
5. #5. All are possible targets as well as timber and even pets!
6. #2. Office of Bio and Food Security Preparedness
7. The 24/7 toll free telephone number of Florida's Agriculture Law Enforcement office is **1-800-342-5869** and you should call it right away if you suspect any case of or issue with agro- or bio- terrorism.

State Agricultural Response Team 55

Test Answer Key (2 of 2)

8. #2. First Detectors
9. #4. All of the above may be terrorist objectives
10. This too is an opinion question and there is no right or wrong answer. It is entirely personal. However, if you have an idea that you believe will make America stronger or more vigilant without sacrificing our free and democratic way of life, please write that idea on the answer sheet!

State Agricultural Response Team 56

Glossary

- Agroterrorism: when any person knowingly or maliciously uses biological or chemical agents as weapons against the agriculture industry and food supply. It may also be thought of as the malicious use of plant or animal pathogens to cause disease in the agricultural sector – plants or animals.
- Bioterrorism: The deliberate release of viruses, bacteria, other germs or chemicals to cause illness or death in people, animals, or plants.
- SART: The Florida State Agricultural Response Team. A multi-agency coordinating group consisting of governmental and private entities dedicated to all-hazard disaster preparedness, planning, response and recovery for the animal and agriculture sectors in Florida.
- Terrorist: One who utilizes violence and intimidation systematically to achieve political objectives, while disguised as a civilian non-combatant. The use of a civilian disguise exempts the perpetrator from protection under the Geneva Conventions, and consequently if captured they are liable for prosecution as common criminals.

State Agricultural Response Team 57

Reporting Suspicious Plant and Animal Diseases Cases

Protect Florida agriculture.
Report suspicious animal disease cases to the Office of the State Veterinarian.
All calls are confidential and toll free.
Daytime (8 am –5 pm) 1-877-815-0034
(1-850-410-0900)
Or to Office of Bio & Food Security Preparedness
1-850-410-6757
Or 24/7 to Agriculture Law Enforcement
1-800-342-5869
Or SPDN Hub Laboratory (Gainesville)
1-352-392-1795

State Agricultural Response Team 58

Agroterrorism and Bioterrorism Prevention and Response

This concludes our presentation on "The threat of Agroterrorism and Bioterrorism in Florida: Prevention and a Coordinated Response." Thank you for attending and participating.

State Agricultural Response Team 59