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About Florida SART

- SART is a multi-agency coordination group.
- SART is made up of over 25 partner agencies (state, federal and non-governmental organizations).
- SART provides preparedness and response resources for Emergency Support Function 17 [(ESF 17) Animal and Agricultural Issues].
- SART statutory authority
  - State Emergency Management Act (Section 252.3569, Florida Statutes)

SART Mission

Empower Floridians through training and resource coordination to enhance all-hazard disaster planning and response for animal and agricultural issues.

SART Goals

- Support the county, regional and state emergency management efforts and incident management teams.
- Identify county resources available for animal and/or agricultural issues.
- Promote the cooperation and exchange of information of interested state, county and civic agencies.
Specific Learning Objectives

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

- Discuss the vulnerability of Florida Agriculture
- Discuss agroterrorism
- Explain biosecurity
- Identify methods to ensure premises’ security
- Identify worker security and awareness
- Identify methods to protect animals from exposure to disease or contamination
- Identify recommendation for personal sanitation
- Identify equipment cleaning and disinfection procedures
- Identify procedures to reduce potential for premise contamination by movement of animals and visitors
- Identify emergency procedures
Resources

The following are sources of additional information about the subjects mentioned in this introduction.

**USDA-APHIS District Office locations and contact information**

**State Veterinarian list**

**FDACS Division of Animal Industry**
https://www.freshfromflorida.com/Divisions-Offices/Animal-Industry

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

**USDA Animal and Plant Health Inspection Service (APHIS)**
https://www.aphis.usda.gov/aphis/home/

**United States Animal Health Association (USAHA) animal disease information links**
http://www.usaha.org/disease-information

**UF-IFAS EDIS fact sheets on veterinary and animal health topics**
http://edis.ifas.ufl.edu/DEPARTMENT_VETERINARY_MEDICINE
http://edis.ifas.ufl.edu/TOPICTopic_Livestock_by_Animal
http://edis.ifas.ufl.edu/TOPICTopic_Livestock_Health_by_Animal

**UF-IFAS Extension Disaster Handbook**
http://disaster.ifas.ufl.edu

**University of Florida Institute for Food and Agricultural Sciences**
**Extension publication resource (EDIS), Bioterrorism and Biosecurity**
https://edis.ifas.ufl.edu/topic_bioterrorism
Resources, continued

University of Florida Institute for Food and Agricultural Sciences
Extension, Biosecurity and Biological Risk Management for Livestock Enterprises
https://edis.ifas.ufl.edu/an194

Animal Health Australia (AHA), Farm Biosecurity

Canadian Food Inspection Agency, Animal Biosecurity
http://www.inspection.gc.ca/animals/terrestrial-animals/biosecurity/
eng/1299868055616/1320534707863
**Learning Objectives 1**

- Discuss the vulnerability of Florida Agriculture
- Discuss agroterrorism
- Explain biosecurity
- Identify methods to ensure premises' security
- Identify worker security and awareness
- Identify methods to protect animals from exposure to disease or contamination

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**Learning Objectives 2**

- Identify recommendation for personal sanitation
- Identify equipment cleaning and disinfection procedures
- Identify procedures to reduce potential for premise contamination by movement of animals and visitors
- Identify emergency procedures

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**What is biosecurity?**

*Agrosecurity* means protecting the following from harmful acts – both intentional and unintentional:

- agricultural operations,
- the food processing industry,
- the food distribution system
- the hospitality industry

When talking about agriculture, *biosecurity* focuses on acts involving the introduction of pests or diseases.
Florida’s Agricultural Vulnerability

- Agriculture in Florida has an annual economic impact of $120 billion
- The safety of the food supply has to begin at its source

Florida’s Agricultural Vulnerability

Florida has been called an agricultural **sentinel state** because if a foreign animal or plant disease introduction or agroterrorism event occurs in the United States . . .

. . . there is a good chance it will occur FIRST IN FLORIDA!

Florida’s Agricultural Vulnerability

Florida’s borders are truly porous:
- 14 major seaports
- 109 general airfields
- 20 commercial airports
- 25 military airfields
- Over 300 private airports

Appendix A: Slides 7-9
Florida's Agricultural Vulnerability

- Florida ranked second in the nation (2016) for airline passenger volume with over 168.7 million passengers
- Over 112 million tourists visited Florida in 2016 – 10% of these are from foreign countries and Canada

Agroterrorism

When any person knowingly or maliciously uses:

- biological agents
- chemical agents
- plant pathogens
- animal pathogens

... as weapons against the agriculture industry or food supply.

Florida's Agricultural Vulnerability

Global Availability

- Foot-and-mouth Disease in 25+ countries
- Hog Cholera, Avian Influenza and Exotic Newcastle Disease are widespread
- Animal disease agents can be produced or delivered without sophisticated equipment
Florida's Agricultural Vulnerability

Agents that can be introduced, transmitted, and/or created by people pose a significant risk

- Anthrax
- Foot-and-mouth Disease
- Food-borne bacteria – E. coli, salmonella

Not limited to these organisms!

Prohibited Materials Carry Contagens

High potential for prohibited materials entering Florida – gifts, souvenirs, food and other products

How Florida Is Vulnerable -- Animals

10 million poultry
How Florida Is Vulnerable -- Animals

1.6 million cattle

How Florida Is Vulnerable -- Animals

55,000 goats  10,000 sheep

How Florida Is Vulnerable -- Animals

500,000 swine (commercial and feral)
How Florida Is Vulnerable -- Animals

350,000 horses

How Florida Is Vulnerable -- Animals

280 Game Farms and Hunting Preserves

Biosecurity Measures

May seem drastic, but helps to preserve agriculture
Definition of Biosecurity

Security from transmission of infectious disease, parasites, and pests among livestock, poultry, wildlife and zoo animals

Your Biosecurity Resource Group?

• You (and your family)
• Foreman and workers
• Veterinarian
• Nutritionist
• Extension specialist
• Suppliers

All of you are responsible for your Biosecurity Plan

The Biosecurity Key

Programs must reduce the risk of transferring disease agents, so...

Exposure Prevention Is the Key!
If Reducing Risk Is the Key . . .

What should a biosecurity plan include?

• Increase my animals’ ability to resist disease
  – Vaccination
• Minimize contacts that might result in disease
• Eliminate sources of infectious agents
  – Other livestock, birds, insects, rodents, people,
    manure, soil, surface water (or water tanks), feed, and
    equipment

In Developing Your Biosecurity Plan . . .

Ask these questions:

• What are your disease concerns?
• What are the risk factors for these concerns?
• What management actions should be considered?
• How will this be monitored?

The plan must be written and practiced to be effective!

Premise and Building Security

• Critical to ensuring farm biosecurity
• Perimeter fence (with appropriate signage)
• Only one entry/exit to property with lockable gate
• Critical storage areas should have limited access and be
  locked when not in use. (Lighted if appropriate)
• Establish neighborhood watch program
• Report any suspicious activity to law enforcement officials
• Maintain inventory of equipment and chemicals
Premise and Building Security

Lock gates!

Protect feed and supplies from unintentional OR intentional contamination

Worker Security and Awareness

• Pre-employment resume and background check
• Provide biosecurity awareness and personal protective equipment training and implementation policy
• Animal disease recognition training
• Job procedure training
• Train employees to recognize and report suspicious individuals or unusual activities
• Review emergency plan regularly

Protect Animals from Exposure to Disease and Contamination

• Keep fences adjacent to livestock on neighboring premises in good repair
• Maintain closed herd if possible
• Purchase from sources with known herd health practices
• Isolate herd additions, including those returning from shows, for at least 2 weeks prior to allowing them to comingle with other animals to reduce potential for introducing a disease
• Know the source and quality of purchased feed and hay

Appendix A: Slides 29-31
**Does Your Biosecurity Plan Include . . .**

- Maintain a vaccination/parasite control program.
  - Review herd health plans annually with your DVM
- Separate any obviously sick animals from the rest of the herd and contact your veterinarian for the appropriate treatment.
- Know the signs of reportable/foreign animal diseases and report any unusual signs to your veterinarian.

**Does Your Biosecurity Plan Include . . .**

- Limit direct contact between livestock, wildlife, pets, and pests.
  - Prevent wildlife and pets from sharing feed bunks or water sources.
  - Rodents, other vermin and wildlife are very mobile and can spread disease agents. Don’t ignore dogs, cats, and poultry.
- Protect Your Animals from Disease and Contamination!

**Other Considerations**

- Ensure that adequate hand washing and boot cleaning/disinfection supplies are available and monitor workers to ensure compliance with established protocol
- Do not feed table scraps, human food products or garbage to farm animals
- Reduce potential for runoff of water and organize material from adjacent livestock premises
No meat scraps!

- Don’t feed meat scraps to livestock!
- Don’t risk introducing Foot-and-mouth Disease

Personal Sanitation

- If possible, provide on-farm laundry facilities or furnish coveralls for use by workers, especially those with personal livestock
- Provide foot bath and require personnel to use when entering and leaving animal areas
- Provide adequate facilities for hand washing and require workers to use them
- Provide disposable gloves for use by workers and insist they use them when treating sick animals or assisting with births
- Insist workers wash hands before milking dairy animals

Equipment Cleaning/Disinfection Procedures

- Equipment includes all farm vehicles, as well as animal transportation/handling and veterinary equipment
- Do not lend or borrow equipment. If it must be loaned or borrowed, clean and disinfect before and after each use
- All manure and organic material must be removed to make disinfection effective
- Clean/disinfect all equipment after each use, especially when used on sick animals

These tips will contribute greatly to keeping animals healthy!
Visitor Policy

- Know your visitors!
- Have they been on other premises?
- Have they traveled internationally within the previous week?

Procedures for Premise Entry/Exit 1

- Require delivery vehicles and visitors to use a controlled entry/exit point
- Ensure premise personnel are present to ensure that a record is kept on all persons visiting the premise
- Ensure that all vehicles have tires and undersurfaces cleaned and disinfected prior to entering and exiting the premises
- Prevent visitor and service vehicles from driving across feed delivery and manure removal routes whenever possible

Procedures for Premise Entry/Exit 2

- Park all vehicles away from livestock areas, preferably concrete
- Provide a foot bath or disposable footwear for use by visitors exiting vehicles
- Locate holding pens for animal pickup/delivery away from barns and other livestock areas
- Ensure that livestock hauling vehicles are clean and well-bedded to prevent disease introduction and injury to livestock
Premise Biosecurity

- Don’t haul trash or garbage from other ranches!
- Bag all refuse, trash and contaminated clothing when leaving any premises.

Premise Biosecurity

- Clean boots BEFORE and AFTER working animals!
- Remove dirt, debris.
- Disinfect!

Premise Biosecurity

- Don’t carry disease home!
- Clean and disinfect tires at YOUR gate . . .
- Reduce the risk of disease!
Emergency Procedures

- Must be written, provided upon initial employment, responsibilities clearly identified, and reviewed periodically with each worker
- Evacuation plans for all buildings
- Utility locations and procedures for shutting down
- Worker procedures during an emergency
- Emergency contact information

Some Florida Resources

Cases of suspicious disease should be reported to federal and state authorities

USDA-APHIS District Office locations and contact information

State Veterinarian list

Disaster Resources

FDACS Division of Animal Industry
https://www.freshfromflorida.com/Divisions-Offices/Animal-Industry

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

USDA Animal and Plant Health Inspection Service (APHIS)
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United States Animal Health Association (USAHA) animal disease information links
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## Key Resources 1

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- [http://edis.ifas.ufl.edu/TOPIC_Livestock_by_Animal](http://edis.ifas.ufl.edu/TOPIC_Livestock_by_Animal)
- [http://edis.ifas.ufl.edu/TOPIC_Livestock_Health_by_Animal](http://edis.ifas.ufl.edu/TOPIC_Livestock_Health_by_Animal)

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## Key Resources 2

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## Review Learning Objectives 1

- Discuss the vulnerability of Florida Agriculture
- Discuss agroterrorism
- Explain biosecurity
- Identify methods to ensure premises’ security
- Identify worker security and awareness
- Identify methods to protect animals from exposure to disease or contamination

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Appendix A: Slides 47-49
Review Learning Objectives 2

- Identify recommendations for personal sanitation
- Identify equipment cleaning and disinfection procedures
- Identify procedures to reduce potential for contamination of premises by movement of animals and visitors
- Identify emergency procedures

Thank You!

Appendix A: Slides 50-51