# Tools and Resources from the FDA's Food Defense Oversight Team (FDOT)

Multi-State Partnership

Symposium for Food and Agriculture Security

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# Food Defense Oversight Team

The FDA's Food Defense Oversight Team (FDOT) oversees the food defense related activities of the Agency, through the development of tools and resources, as well as assisting in the implementation of procedures to prepare for, respond to, and recover from intentional contamination affecting the FDA regulated food industry.

The FDOT is responsible for data collection and analysis, policy development and conducts numerous domestic and international outreach efforts addressing food defense.

### Food Defense Goals

To prevent an attack if possible – minimize the risk

To intervene by identifying & mitigating vulnerabilities

To **respond** rapidly and efficiently

To <u>recover</u> rapidly and restore consumer confidence in the food supply

# Food Protection & Safety Activities in Wisconsin...





## Disaster Denial Paradigm

It isn't going to happen.

If it happens, it will not be as bad as they said it would be.

If it happens, and it is as bad as they said, it will not happen to me.

If it happens and it is as bad as they said, and it happens to me, then someone has planned for it and is coming to help.





# Principles and the Spectrum of Intentional Contamination







## Food Defense Tools and Resources

Tools and Resources

**Funding Opportunities** 

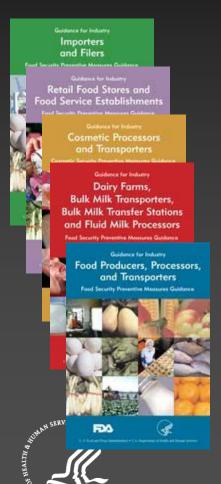
International Activities

Accessing Materials





# Industry Guidance + Self Assessment Checklist



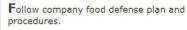
### **Food Defense Tools**

# Training Programs ALERT and Employees FIRST

In today's world it is important to be ALERT to protect vour business.

- A How do you **ASSURE** that the supplies and ingredients you use are from safe and secure sources?
- How do you **LOOK** after the security of the products and ingredients in your facility?
- What do you know about your **EMPLOYEES** and people coming in and out of your facility?
- Could you provide **REPORTS** about the security of your products while under your control?
- What do you do and who do you notify if you have a **THREAT** or issue at your facility, including suspicious behavior?





 ${f I}$ nspect your work area and surrounding areas.

 ${f R}$ ecognize anything out of the ordinary.

**S**ecure all ingredients, supplies, and finished product.

Tell management if you notice anything unusual or suspicious.

# CARVER+Shock Vulnerability Assessment Software 2.0



#### **Coming Soon!**

- Mitigations Database
- FREE-B: Food Related Emergency Exercise Boxed Set



FDA.gov/food/fooddefense

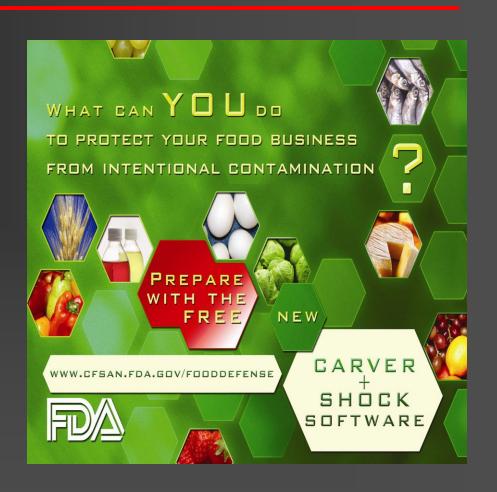
# CARVER Software Tool Update





### **CARVER + Shock Software**

- Version 1 released June2007
- Manufacturers
- Based on company information entered by the user
- Housed on the users' computer, no 3<sup>rd</sup> party access to data
- Customized results
   available only to the user





### Version 2

- Agriculture module: released in Nov '09
- CARVER will extend from pre-harvest to retail
- Updates based on 'inputs' from users...
- Increased usability
  - Simpler, faster and easier to interpret
- Focus accessibility <u>and</u> vulnerability
  - Out of CARVER categories, industry can influence/affect "V" and "A" the most





## CARVER + shock - what's in a name?

- CARVER ascribes six attributes used to evaluate the attractiveness of a target for attack:
- Criticality measure of public health and economic impacts of an attack
- Accessibility ability to physically access and egress from target
- Recuperability ability of system to recover from an attack
- Vulnerability ease of accomplishing attack
- Effect amount of direct loss from an attack as measured by loss in production
- Recognizability ease of identifying target
- + Shock, to assess the combined health, economic and psychological impacts of an attack within the food industry.

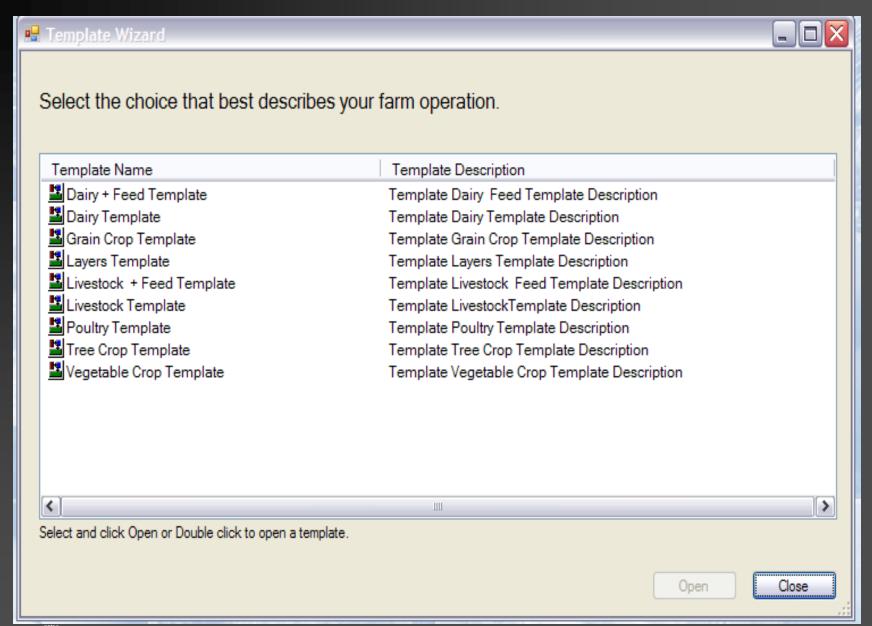






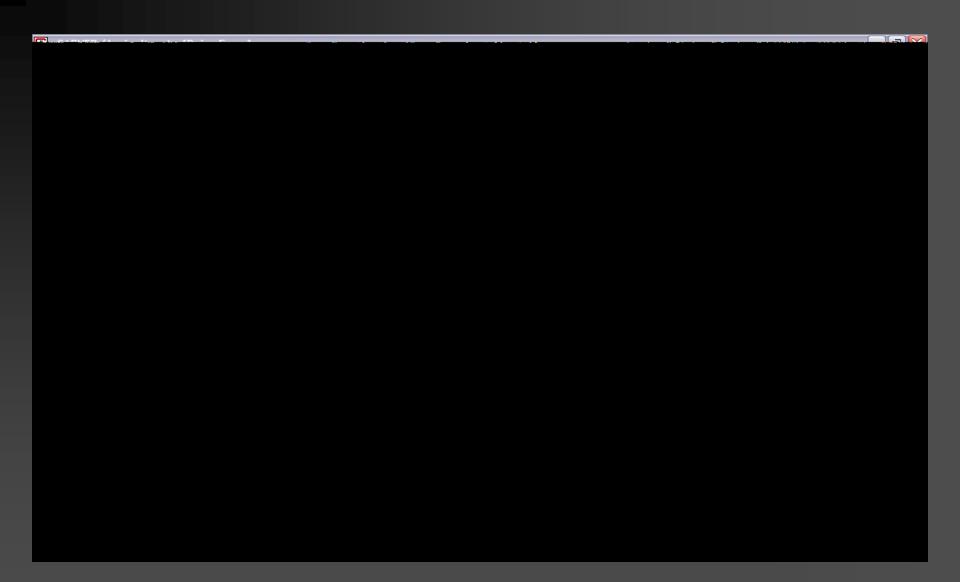






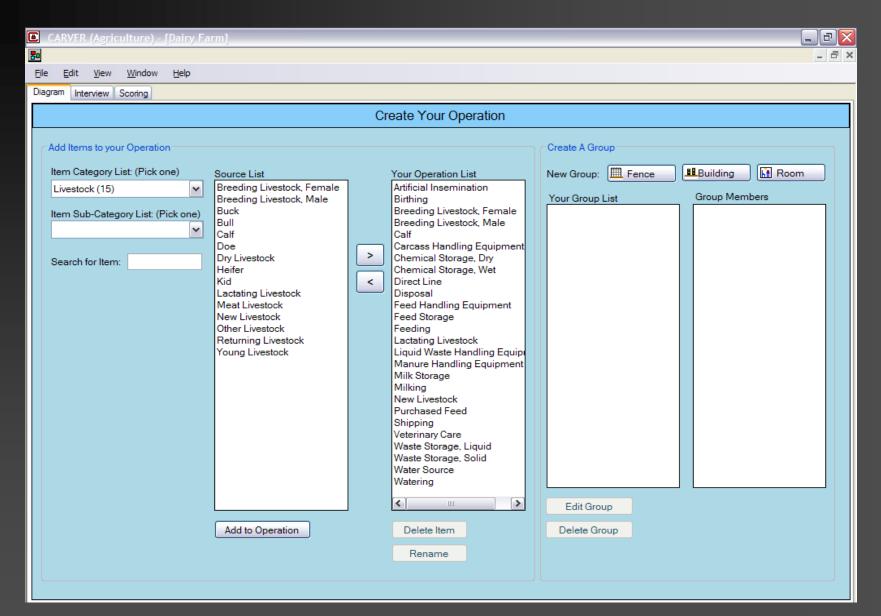






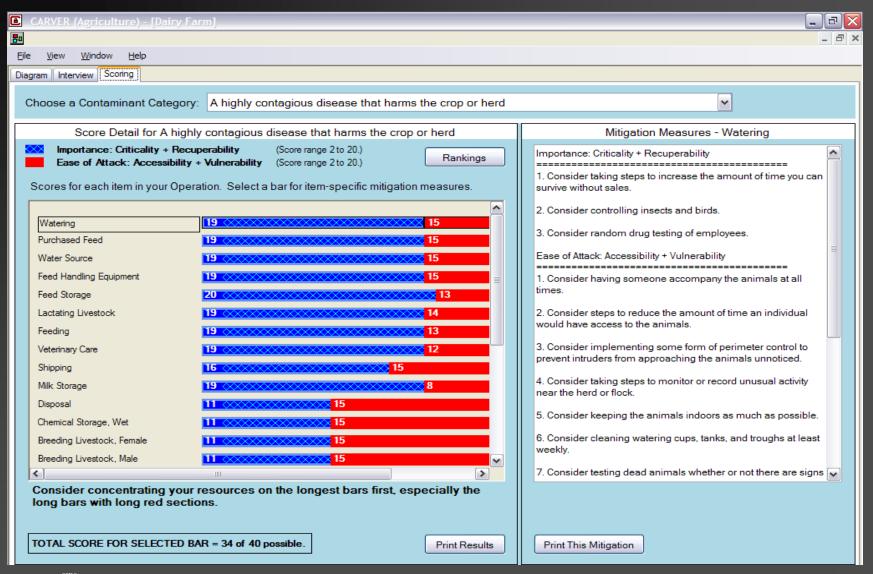
















# Food Defense Mitigation Strategies Database





# Mitigation Strategies Database

- Contains a range of preventative measures for industry to consider
- Searchable
- Focuses on agriculture, manufacturers, and retail/foodservice
- Data can be searched by a specific item, or *node*, commonly used within commercial/retail food, and agriculture industry (i.e., harvesting, production and distribution)





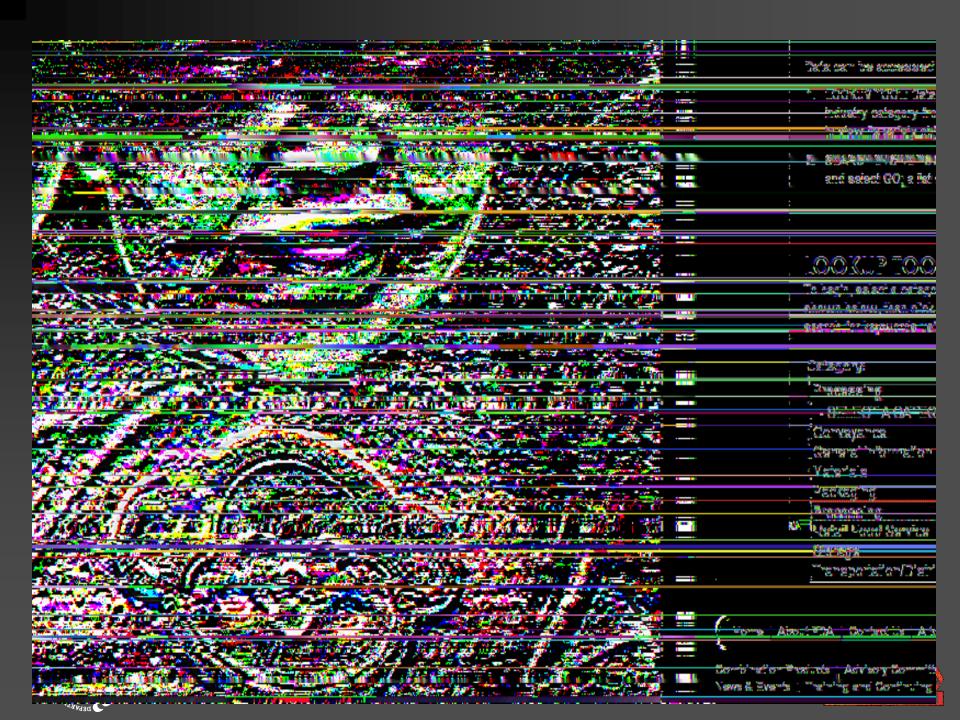
## Mitigation Strategies Database

- Mitigations strategies are "tiered"
- Three (3) Level Approach based on cost and complexity of implementing strategy (i.e., hierarchy of preventive measures that may reduce the likelihood on an attack):
  - (1) Initial Mitigation Strategies address a basic level of security.
  - (2) Moderate Mitigation Strategies address an increased level of security.
  - (3) Comprehensive Mitigation Strategies address the highest level of security.
- Mitigations compiled from Guidance Documents, Open Literature, & Industry Input
- Additional nodes are being continuously added and updated









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This guidance represents the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the FDA staff responsible for implementing this guidance. If you cannot identify the appropriate FDA staff, call the appropriate telephone number listed on the title page of this guidance.



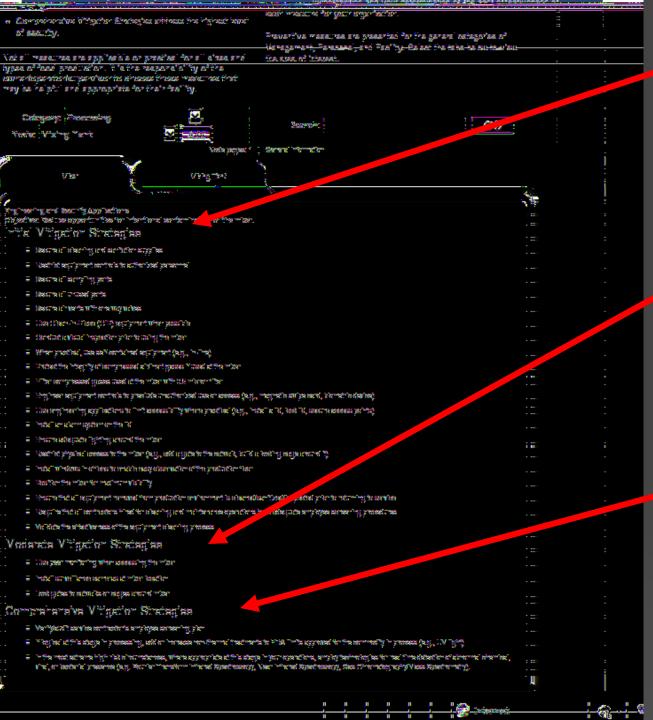
The Node Security Data Sheet (NSDS) is designed using a three- tiered approach. This approach offers a hierarchy of preventive measures that may reduce the likelihood of an attack.

- Tier 3 measures address a basic level of security.
- · Tier 2 measures address an increased level of security.
- · Tier 1 measures address the highest level of security.

Not all measures are applicable or practical for all sizes and types of food production. It is the responsibility of the owner/operator/supervisor to choose those measures that may be helpful and appropriate for their facility. Some measures may only require a policy change, while others may require your company to incur up-front costs to prepare for a higher level of security. In these cases, the measures must be identified in advance and ready to be implemented if a higher level of security is desired. The number and extent of the preventive measures that you choose to implement is dependent on an analysis of your vulnerabilities and your determination of the cost-effectiveness of each measure for your organization.

Preventive measures are presented for the general categories of Management, Personnel, and Facility. Select the tabs below to view the area of interest.

Category: Processing	~		
Node: Mixing Tank	Add	Search:	GO
	Node pages:	1   General Information	
1	6		
Mixer	Mixing Tank		



#### INITIAL

Secure Sampling ports, unused ports...

#### MODERATE

Install surveillance cameras...

#### COMPREHENSIVE

Add / increase non-thermal treatments.

# ALERT / FIRST Review and Updates





# ALERT / FIRST: Review and Updates

for owners and operators of food establishments about the security of your facilities

#### In today's world it is important to be ALERT to protect your business.

- How do you ASSURE that the supplies and ingredients you use are from safe and secure sources?
- How do you LOOK after the security of the products and ingredients in your facility?
- What do you know about your EMPLOYEES and people coming in and out of your facility?
- Could you provide REPORTS about the security of your products while under your control?
- What do you do and whom do you notify if you have a THREAT or issue at your facility, including suspicious behavior?

Can you answer these questions?



For help in answering these questions, check www.cfsan.fda.gov/alert

Awareness tool, targeting mgrs.:

- A Assure supplies are safe
- L Look after products in your facility
- E Employees / personnel in and out of the facility
- R Reports that can be produced on your supplies
- T Threat reporting processes in place



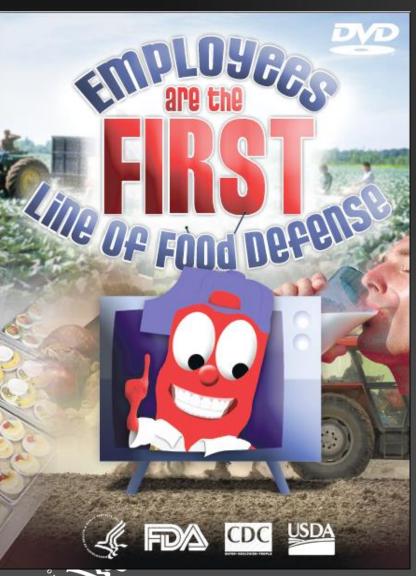
# ALERT / FIRST: Review and Updates

- Employees FIRST is an FDA initiative that food industry managers can include in their ongoing employee food defense training programs.
- Employees FIRST educates front-line food industry workers from farm to table about the risk of intentional food contamination and the actions they can take to identify and reduce these risks.





# Employees FIRST



Awareness tool targeting EMPLOYEES / food workers:

- F Follow company food defense plan and procedures.
- I Inspect your work area and surrounding areas.
- R Recognize anything out of the ordinary.
- S Secure all ingredients, supplies, and finished product.
- T Tell mgmt if you notice anything unusual or suspicious.

# Additional Languages Now Available on Web

- Chinese
- French
- Korean
- Japanese
- Vietnamese







#### **Employees FIRST Tool Kit**

#### Available in English:

Employees are the FIRST line of food defense.

#### Available in Spanish:

Empleados son la PRIMERA linea de defensa de los alimentos.

#### Available in Chinese:

视频: 员工是食品防护的FIRST防线.

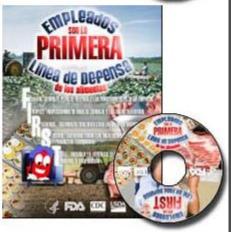
The Employees FIRST tool kit includes

- an entertaining and informative animated 12-minute DVD (available for viewing online);
- a 4-color poster (available in PDF\*, (2.7MB), and Spanish PDF\*, (2.7MB)) that can be hung in work areas to reinforce the initiative.

Employees FIRST Learning Objectives:

- Increase food defense awareness
- Define and explain the five parts of the Employees FIRST initiative









## **FIRST Chinese**





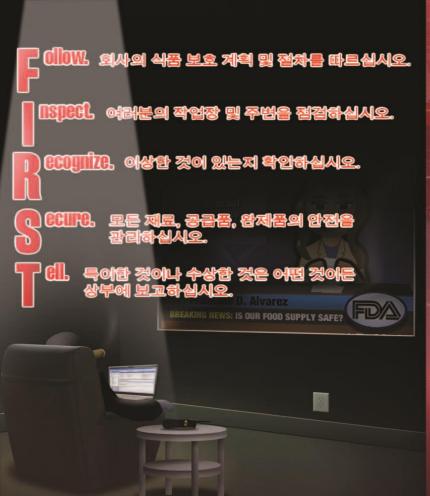
## FIRST French

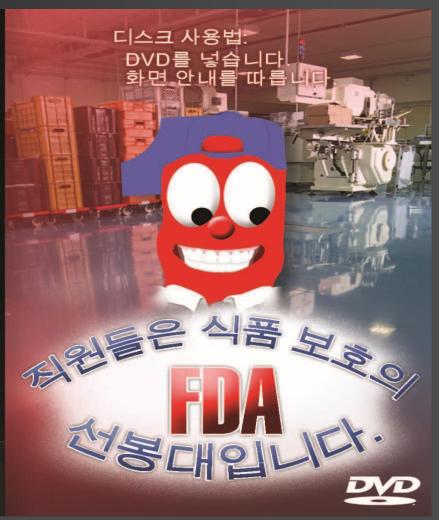






### **FIRST Korean**

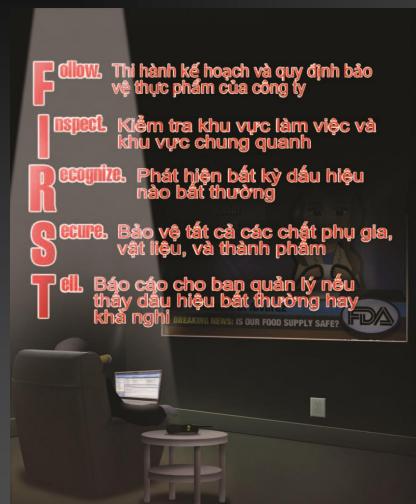








### **FIRST Vietnamese**









# FIRST Japanese

の防衛に関する職場の対 作業場とその周囲を点検する 1991年 普段と違う点に注意する すべての原材料や使用品、 異常や疑わしい点に気付いたら、





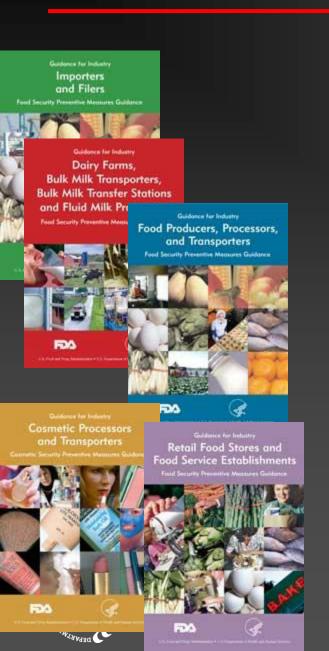


### Preventative Measures Guidance





### Food Defense Guidance



- Originally issued in 2003
- Contained information regarding preventative measures
- Topics include physical security, management, personnel and operations policies
- Available in bulk... visit the FDA.gov/FoodDefense website for 'ordering' info...



## Appendix V: Food Defense Self Assessment Tool

- Downloadable PDF file format
- Preventative measure captured as a statement
- Same topics reflected in text document
- Yes/No/Not Applicable/Don't Know choices
- Assessment Tool--No Score





Contains Nonbi	nding Recommendations	Print Forr	<u>n</u>	
	d Drug Administration			
	Self Assessment Tool			
	ll Food Stores and			
	ice Establishments			
Retail Food Store and Food				
Service Establishment Operations:	V N N/A DN//			
'Mark each item either Y (Yes), N (No), N/A (Not Applicable) or DNK (Do Not Know).	Y N N/A DNK			
Management	<ul> <li>Perform random food security inspect areas of the facility (including receiving)</li> </ul>			
Y N N/A DNK  ○ ○ ○ Prepare for the possibility of tampering or other	where applicable) using knowledgeab			
malicious, criminal, or terrorist events	staff	1,		
O O O Assign responsibility for security to knowledgeable	$\circ \circ \circ \circ$ Verify that security contractors are do	ing an appropriate job,		
individual(s)	when applicable		anusual or suspicious behavior by staff	$\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ Monitor the security of the premises using appropriate me
○ ○ ○ ○ Conduct an initial assessment of food security	Human element – staff		1	OOO Minimize, to the extent practical, places in public areas th intruder could remain unseen after work hours
procedures and operations	Human Comont – Stan		-	O O O Minimize, to the extent practical, places in non-public area
$\bigcirc$ $\bigcirc$ $\bigcirc$ Have a crisis management strategy to prepare for	Daily work assignments		atypical staff health conditions that staff	that can be used to temporarily hide intentional contamina
and respond to tampering and other malicious,			arily report and absences that could be an ator of tampering or other malicious,	<ul> <li>O O Provide adequate interior and exterior lighting, include emergency lighting, where appropriate, to facilitate detection</li> </ul>
criminal, or terrorist actions, both threats and actual	○ ○ ○ Know who is and who should be on p	remises, and where they	r terrorist actions, and report such conditions	suspicious or unusual activity
events, including identifying, segregating and	should be located, for each shift		ılth authorities	○ ○ ○ ○ Implement a system of control vehicles authorized to park
securing affected products	○ ○ ○ ○ Keep information updated		111	the non-public parking areas
		Human element -	- public	○ ○ ○ ○ Keep customer, employee, and visitor parking areas separation from entrances to food storage to non-public areas, where
		Custome	rs	practical
			_	Storage and use of poisonous and toxic chemicals
			access to food preparation and storage and ing areas in the non-public areas of the	(for example, cleaning and sanitizing agents, pesticides)
			ment, including loading docks	in non-public areas
			public areas, including entrances to public	○ ○ ○ ○ Limit poisonous and toxic chemicals in the establishment
. SERVICES.			s for unusual or suspicious the serving or display of foods in self-	those that are required for the operation and maintenance of
Figure 100		service a		facility and those that are being held stored or displayed for retail sale
Stricted Services. On the Services of the Serv				○ ○ ○ ○ Store poisonous and toxic chemicals as far away from food
		Other (N	on-Employees, Non-customer) visitors	handling and storage areas as practical
MINAMAN				O O O I imit access to and according starged areas for paicaness

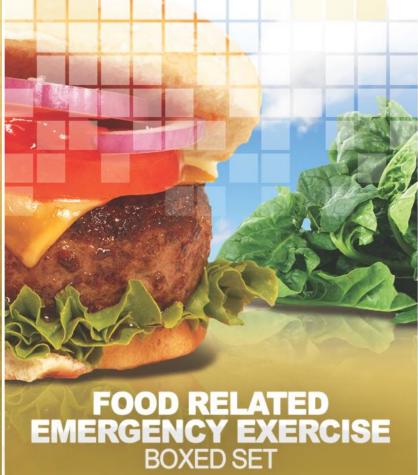
# Food Related Emergency Exercise Boxed set (FREE-B)







ERGENCY **EXERCISE** BOXED



Under development and revision...





# Food Related Emergency Exercise Boxed set (FREE-B)

- Requests for training from our SLTT partners; as a result of previous exercises, anecdotal feedback at mtgs., conferences
- Based on requests, inputs from partners, FDA issued a task order in September 2007
- Exhaustive research, training, and ....
- FREE-B development!!
- It is hoped that these scenarios can be a component of an education & training calendar for SLTT partners





### Food Related Emergency Exercise Boxed set (FREE-B)

- This set is designed to provide jurisdictions with a variety of options to test and improve their capabilities to respond to human or animal health emergencies.
- The scenarios in the set are designed so that jurisdictions can conduct them 'right out of the box' with a minimal amount of effort and editing.
- Each scenario is stand-alone. Collaboration and partnering with several jurisdictions and stakeholders (private sector, medical community, First responders, etc) may be needed to ensure a successful exercise.



### **Funding Opportunities**





### **Funding Opportunities**

#### Innovative Food Defense Program

6 sites previously funded – variety of pursuits

\$62,500 / 1 yr award

2 recent new awards / \$100k recently finalized

#### Food Protection Task Force Grants

\$10k / annual - (5 yr awards)





### Innovative Food Defense Program

The FDOT has partnered with the Division of Federal and State relations (DFSR) and has funded 10 awards since 2008 – nearly \$600k

Projects have ranged in scope from creation of a food defense toolkit (Multnomah County, OR), Food Defense Training slides to be incorporated into Food Worker training (Westchester County, NY) to mapping / GIS spatial tracking of events (currently under development).





### IFDP FOA: Description

Language from FOA: "to solicit applications from institutions/ organizations that propose to develop Innovative Food Defense programs within the United States. The program should encompass 3 broad strategies in its food defense activities (1) Awareness (Prevention/Preparedness); (2) Response; and (3) Recovery."





# IFDP Funding Opportunity Announcement (FOA)

The specific goal of this program is to generate products that complement, develop, or improve State and local food defense programs and which may then be applied to food defense programs nationwide.

Examples of food defense projects are the ALERT / FIRST Food Defense Awareness Initiatives; Food Defense Surveillance Assignments (FDSA); Food Emergency Response Network (FERN: federal and state laboratories); and the Strategic Partnership Program Agroterrorism (SPPA) Initiative.





### Innovative Food Defense Program

For 2010-11:

Considering moving to the Federal Register posting of the announcement

Working to develop a repository of abstracts of completed projects as well as POCs for current projects





### **Funding Opportunities**

Food Protection Task Force Grants (currently 28 sites)

AL, CO, DC, FL, IN, KS, KY, LA, MA, MD, MI, MN, MS, MO, MT, NE, NV, NM, NH, NC, OK, OK, PA, TN, VA, WA, WV, WY

Grants.gov – Funding Opportunity # is PAR-09-123 and the deadline is March 31, 2011.





### International Outreach





### Food Defense International Outreach

#### **APEC Food Defense Pilot Program**

- 3 phases
  - (1) Assess, (2) Train, (3) Assist
- Peru 2008
- Thailand 2009
- Vietnam 2010
- Philippines 2011

#### **Technical Assistance**

- Latin America
  - Panama 2009
- Caribbean Basin
  - Trinidad 2009



#### International "Road shows"

2011 – 2013

- India
- China
- Mexico
- Middle East

#### **Government Partners**

- USDA
  - FSIS
  - FAS
- Department of State





### Accessing Materials





### FDA's Web migration

Easier

Searchable

NEW webpage URL.... FDA.gov/FoodDefense





A-Z Index

Search

**9** 

Home | Food | Drugs | Medical Devices | Vaccines, Blood & Biologics | Animal & Veterinary | Cosmetics | Radiation-Emitting Products | Tobacco Products

#### Food

Home > Food > Food Defense & Emergency Response

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# Food Defense & Emergency Response Food Defense Programs Regulatory Information Food Security Preventative Measures Guidance CARVER + Shock Emergencies Training

#### Food Defense & Emergency Response

FDA works with other government agencies and private sector organizations to help reduce the risk of tampering or other malicious, criminal, or terrorist actions on the food and cosmetic supply.

• Food Defense Programs

Food Emergency Response Network, Strategic Partnership Program - Agroterrorism

- Training Materials and Announcements
   Training resources, upcoming courses, course registration
- FDA Actions on Bioterrorism Legislation (Food Supply) (Bioterrorism Act of 2002)
  - Administrative Detention
  - Registration of Food Facilities
  - Establishment and Maintenance of Records
  - Prior Notice of Imported Food Shipments
- Food and Cosmetic Security Preventive Measures Guidance

#### Spotlight

- ALERT: The Basics
- Employees FIRST
- Food Defense Resource Materials Order Form
- <u>CARVER Software New</u> 2.0 Release

Page Last Updated: 03/18/2010

Note: If you need help accessing information in different file formats, see Instructions for Downloading Viewers and Players.

#### od Defense Resource Materials for Industry Order Form

ease send me the following ALERT/ Food Defense materials:

	ALERT Material	Number Requested			
Materials ordered					
Country:					
State/Province/Territory:	Iowa	ZIP/Postal Code:	50131		
City:	Johnston				
Address line 2:					
Address:	Camp Dodge, W-4 7105 NW 70th Ave				
Recipient's Company/Institution:	Multi-State Partnership Coordi	nator			
Email:	Mark.Shearer@iowa.gov				
Name of Recipient:	Mark Shearer	Phone:			
		Please allow 2-3 weeks t	for delivery.		
Date submitted:	9/22/2010	Date needed:			
Shipping information					



#### In today's world it is important to be **ALERT** to protect your business.

- How do you ASSURE that the supplies and ingredients you use are from safe and socure sources?
- ingredients you use are from safe and socure source
- How do you **LOOK** after the security of the products and ingredients in your facility!
- What do you know about your EMPLOYEES and people coming in and out of your facility?
- Could you provide REPORTS about the security of your products while under your control?
- What do you do and whom do you notify if you have a THREAT or issue at your facility.

ALERT card (English)
(PDF\*, 1.2 MB)

5000

(100 cards min. 5000 cards max.)

ALERT card (Español) (PDF\*, 1.6 MB)

5000

### In Summary...

We've discussed:

Tools and Resources

**Funding Opportunities** 

International Activities

Accessing Materials

www.FDA.gov/FoodDefense





### Tools and Resources Wrap-up

If you would like to provide comments or feedback on any of theses tools or resources, please submit them to the following FDA email address:

FoodDefense@fda.hhs.gov

Visit the Food Defense Oversight Team online @: FDA.gov/FoodDefense





### Thanks for your attention!!

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