Focused Mitigation Strategies

U.S. Food Defense Team

Broad Mitigation Strategies

- Basic security measures implemented facility and/or company-wide to provide foundational support for the food defense plan
- Includes security measures related to the facility, personnel, and management
- Are not dependent on conducting a vulnerability assessment

Focused Mitigation Strategies

- Practices implemented to significantly minimize or prevent the vulnerabilities identified in a vulnerability assessment
- May be implemented all along the food production process, from basic agriculture, to food processing, distribution, and retail

Broad Mitigation Strategies

- Simple and intuitive
- Broadly applied
- Almost universally applicable
- Focused on security or preventive measures within a facility

Focused Mitigation Strategies

- May or may not be simple
- Applied after a vulnerability assessment
- Targets a specific vulnerable process step

Broad Mitigation Strategies

Examples

- Fence or other perimeter protection
- Locks on doors
- Employee training
- Visitor policy
- Different colored uniformed for employees
- Securing chemicals or cleaning supplies

Focused Mitigation Strategies

Examples

- Extra controls for “work in process” materials
- Restrict access to ingredient handling areas

Five Suggestions for Low-Cost Mitigation Strategies

1. Building Blocks
2. Multiple Barriers
3. Enhance what is already in place
4. Rely heavily on *Behavioral* Measures
5. Enlist your entire workforce

Strategy 1: Building Blocks

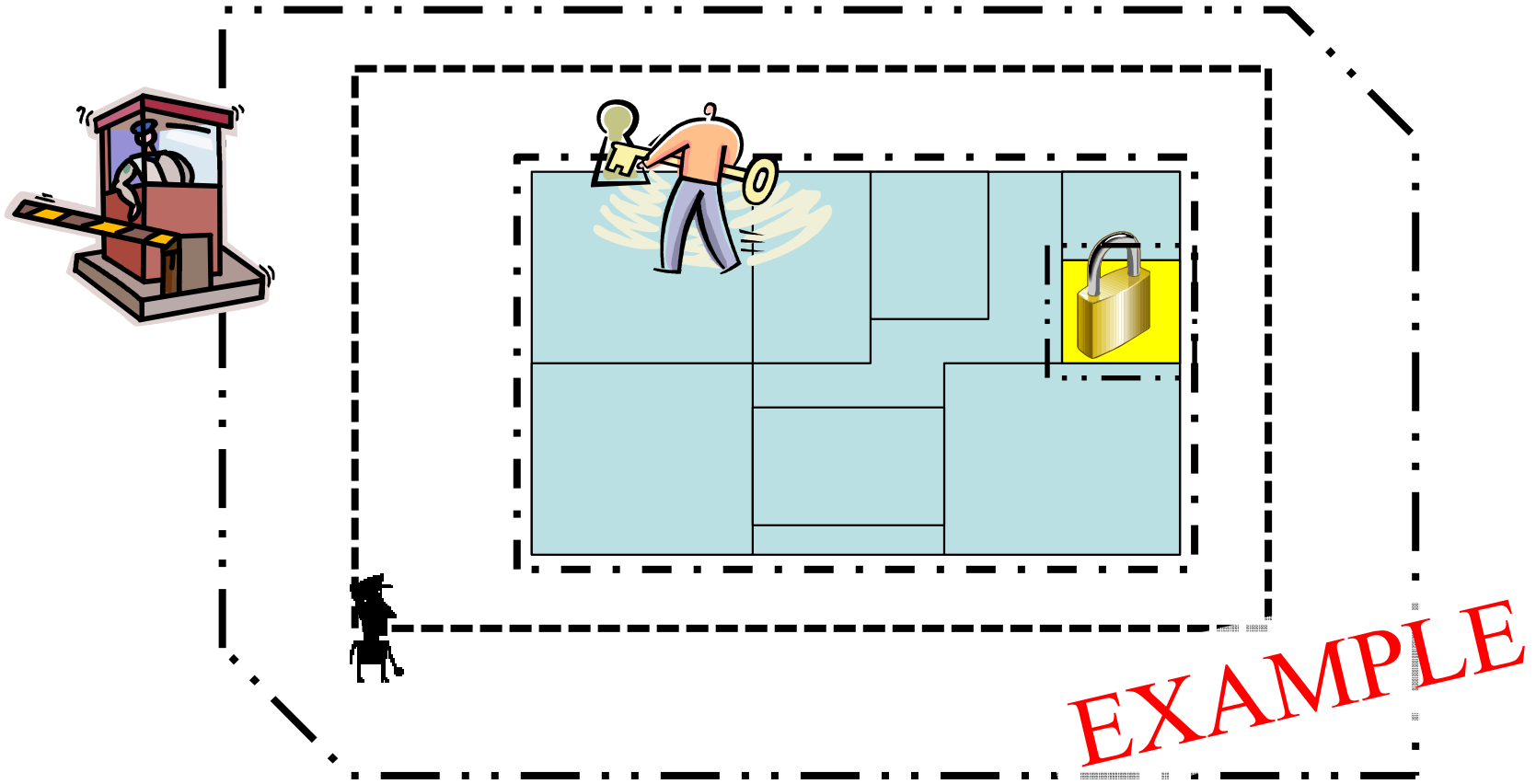
- Broad Mitigation Strategies
  - Foundation of a Food Defense Plan
  - Include facility-wide security considerations:
    - Physical security
    - Personnel
    - Management

Strategy 2: Multiple Barriers

- Example:
  - Vulnerability Assessment identifies mixing tank as a vulnerability
  - Possible Mitigation Strategies
    - Install lock or alarm on mixing tank
    - Conduct visual inspection prior to filling

EXAMPLE

Strategy 2: Multiple Barriers



Broad Mitigation Strategies support Focused Mitigation Strategies

Strategy 3: Enhance what is already in Place

- Mixing Tank
  - Change the locks
  - Control the keys
  - Change lock combination
  - Limit personnel with access to tank
  - Ensure adequate lighting around tank

EXAMPLE

Strategy 4: Rely on Behavioral Measures

- Mixing Tank
  - Peer Monitoring
  - Contractors must be escorted
  - Limit personnel that may access mixing tank area

EXAMPLE

Strategy 5: Enlist Your Entire Workforce

- Make food defense a part of company culture
- Give employees ownership of their work
- FIRST
- ALERT

Mitigation Strategies Tool

- Industry suggested that searchable, user-friendly tools are needed to facilitate identification and selection of applicable mitigations
- Users can readily look up potential mitigations specific to their industry or area of interest
- The tools complement existing guidance materials and will make it easier for companies to develop effective food defense plans
- FSIS / FDA to expand and enhance tools over time based on industry experience and technology development

FDA's MSD

- The FDA has developed a searchable Mitigation Strategies Database (MSD) that focuses on:
  - ✓Basic agriculture
  - ✓Transportation/shipping
  - ✓Manufacturing
  - ✓Retail/foodservice

U.S. Food and Drug Administration - CFSAN - Food Defense Mitigation Strategies Database

Contains Nonbinding Recommendations

Return to Launch Page | Guidance for Industry

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.

U.S. Food and Drug Administration
Protecting and Promoting Public Health

USDA

Data can be accessed using two different methods.

1. LOOKUP TOOL: Data can be searched by a specific item, or *node*, commonly used within commercial food production and distribution. First, select a food industry category from the provided list. Once the category is selected, a list of nodes will be provided to choose from. Once the node is chosen, select "GO" to view its safety objective(s) and steps that can be taken to ensure safety.
2. SEARCH ENGINE TOOL: Data can be searched by a specific term or keyword. Similar to any search engine on the Web, type in the desired item to be found and select GO; a list of applicable items will be returned.

LOOKUP TOOL

To begin, select a category and node from the drop down menus shown below, then click on the "Go" button. Alternatively, you may search for keywords using the search engine provided. (See Below)

Category:

Processing

- SELECT A CATEGORY -
Conveyance
General Information
Materials
Packaging
Processing
Retail Food Service
Storage
Transportation/Distribution

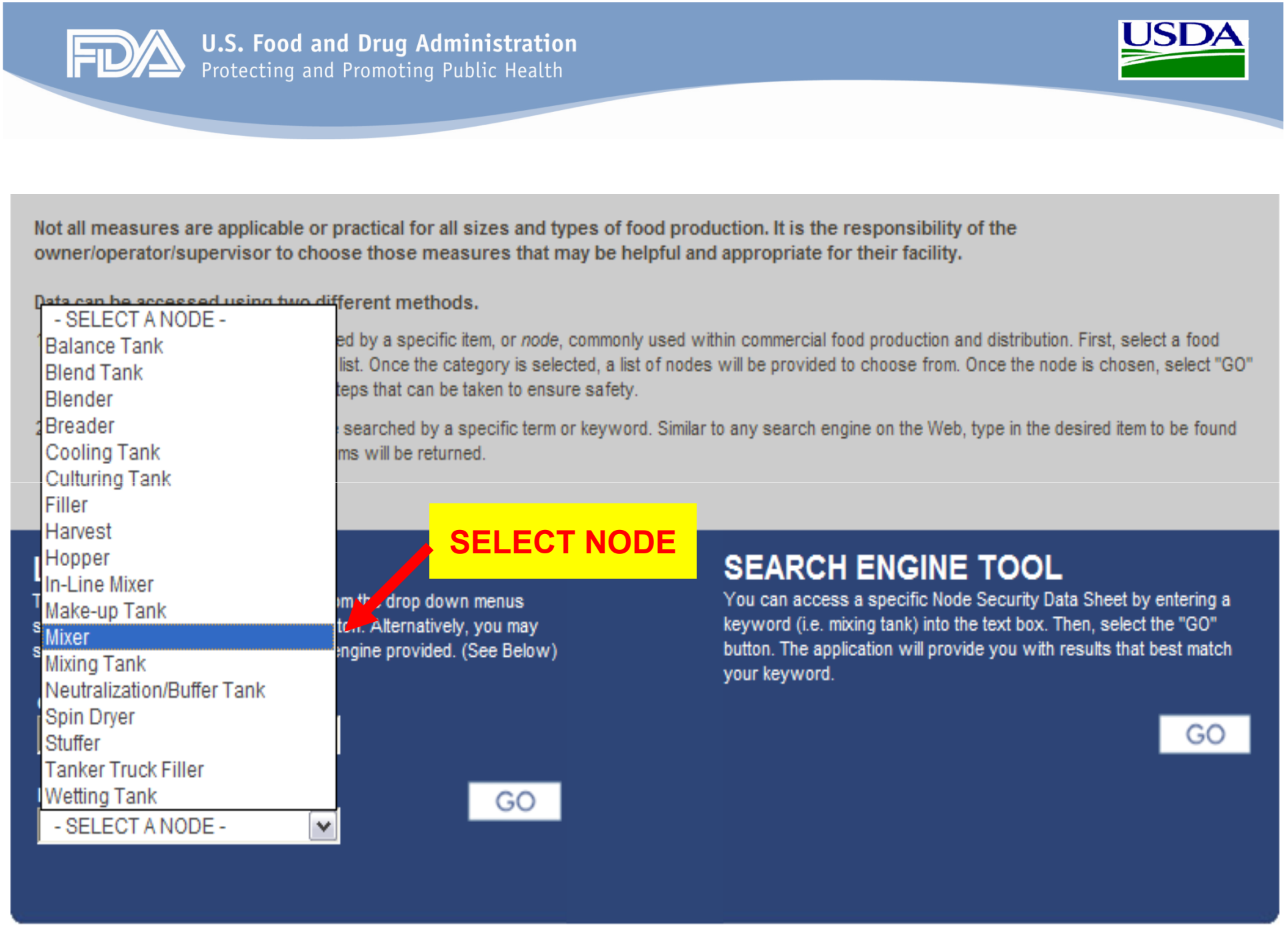
SELECT CATEGORY

GO

SEARCH ENGINE TOOL

You can access a specific Node Security Data Sheet by entering a keyword (i.e. mixing tank) into the text box. Then, select the "GO" button. The application will provide you with results that best match your keyword.

GO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Protecting and Promoting Public Health
USDA
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.
ferent methods.
- SELECT A NODE -
Balance Tank
Blend Tank
Blender
Breader
Cooling Tank
Culturing Tank
Filler
Harvest
Hopper
In-Line Mixer
Make-up Tank
Mixer
Mixing Tank
Neutralization/Buffer Tank
Spin Dryer
Stuffer
Tanker Truck Filler
Wetting Tank
- SELECT A NODE -
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GO

Blend Tank

Engineering and Security Applications
Objective: Reduce opportunities for intentional contamination of the blend tank.

- Secure all cleaning and sanitation supplies
- Restrict blend tank access to specific employees
- Restrict equipment controls to authorized personnel
- Use Clean-in-Place (CIP) equipment when possible
- When practical, use self-contained equipment (e.g., in-line)
- Conduct a visual examination prior to filling the tank
- Secure unused ports
- Secure air vent with one way valves
- Protect the integrity of compressed air/inert gases if used at the blend tank
- Filter compressed gases used at the blend tank with a 0.5 micron filter
- Use engineering applications to limit accessibility where practical (e.g., install a lid, lock lid, secure access points)
- Install an alarm system on the lid
- Engineer equipment controls to preclude unauthorized use or access (e.g., magnetic swipe card, biometric device)
- Ensure adequate lighting around the blend tank
- Restrict physical access to the blend tank (e.g., add a gate to the catwalk, build a locking cage around it)
- Install windows in offices to enable easy observation of the production floor
- Position the blend tank for maximum visibility

FSIS Risk Mitigation Tool

- Organized by industry:
  - Slaughter and meat processing
  - Slaughter and poultry processing
  - Egg products processing
- And cross-cutting categories:
  - Materials receiving and storage
  - Transportation
  - General food defense measures
- Select industry/category and node of interest

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Food Safety Education
Science
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Codex Alimentarius

Food Defense & Emergency Response

Risk Mitigation Tool

FSIS Food Defense Risk Mitigation Tool
Contains nonbinding recommendations

This online tool is part of an ongoing effort by FSIS to help protect the nation's supply of meat, poultry, and egg products from intentional contamination. During vulnerability assessments conducted jointly with FSIS, industry representatives suggested that a searchable, user-friendly tool was needed to facilitate identification and selection of applicable mitigation strategies (i.e., countermeasures).

This tool identifies some possible countermeasures that companies could implement, as part of a food defense plan, to better protect their business, employees, and customers. Some of the countermeasures are specific to particular assets or activities (nodes); others apply more generally to the facility as a whole. Written guidance regarding mitigation strategies is also available in Food Defense Guidelines for Slaughter and Processing Establishments, which can be obtained by calling the Small Plant Help Desk at 1-877-FSIS HELP (374-7435) and is also available on the web at http://www.fsis.usda.gov/PDF/Securityguide.pdf.

The countermeasures listed in this tool are neither mandatory nor exhaustive. Not all of the identified strategies will be applicable, practical, or effective for all types and sizes of slaughter and processing establishments. Additional strategies not included here may also be useful. The user should implement countermeasures appropriate to the specific circumstances of their establishment and operations.

Lookup Tool
The mitigation measures are organized by the category of operation and node (i.e., specific piece of equipment).

1. First, select an industry process category from the provided list, then
2. Choose from among the list of Nodes associated with that category. After selecting the node of interest,
3. Click "SELECT" to view a list of potentially applicable mitigation strategies.

You must choose a Category and a corresponding Node.

Make your selections:
Choose a Category
Choose a Node:
SELECT

Food Defense & Emergency Response
- Preparation & Prevention
  - Guidance Materials
- Surveillance
- Response
  - Exercise Reports
- Recovery
- Office of Data Integration & Food Protection
- Associated Government Emergency Resources

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Make your selections:

Choose a Category | Choose a Node: | SELECT

- Choose a Category
- Slaughter & Meat Processing
- Slaughter & Poultry Processing
- Egg Products Processing
- Materials Receiving & Storage
- Transportation
- General Food Defense Measures

this tool, contact the FSIS
00-233-3935.

SELECT CATEGORY

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- Recovery
- Office of Data Integration & Food Protection
- Associated Government Emergency Resources

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Internet

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2. Choose from among the list of Nodes associated with that category. After selecting the node of interest,
3. Click "SELECT" to view a list of potentially applicable mitigation strategies.

You must choose a Category and a corresponding Node.

Make your selections:

Slaughter & Meat Processing | Choose a Node:

Choose a Node:
Combo Bin
Ingredient Preparation Area
Grinder
Mixing Tank
Brine Tank
Slaughter

SELECT NODE

For questions or clarification on th
Technical Service Center at 1-800

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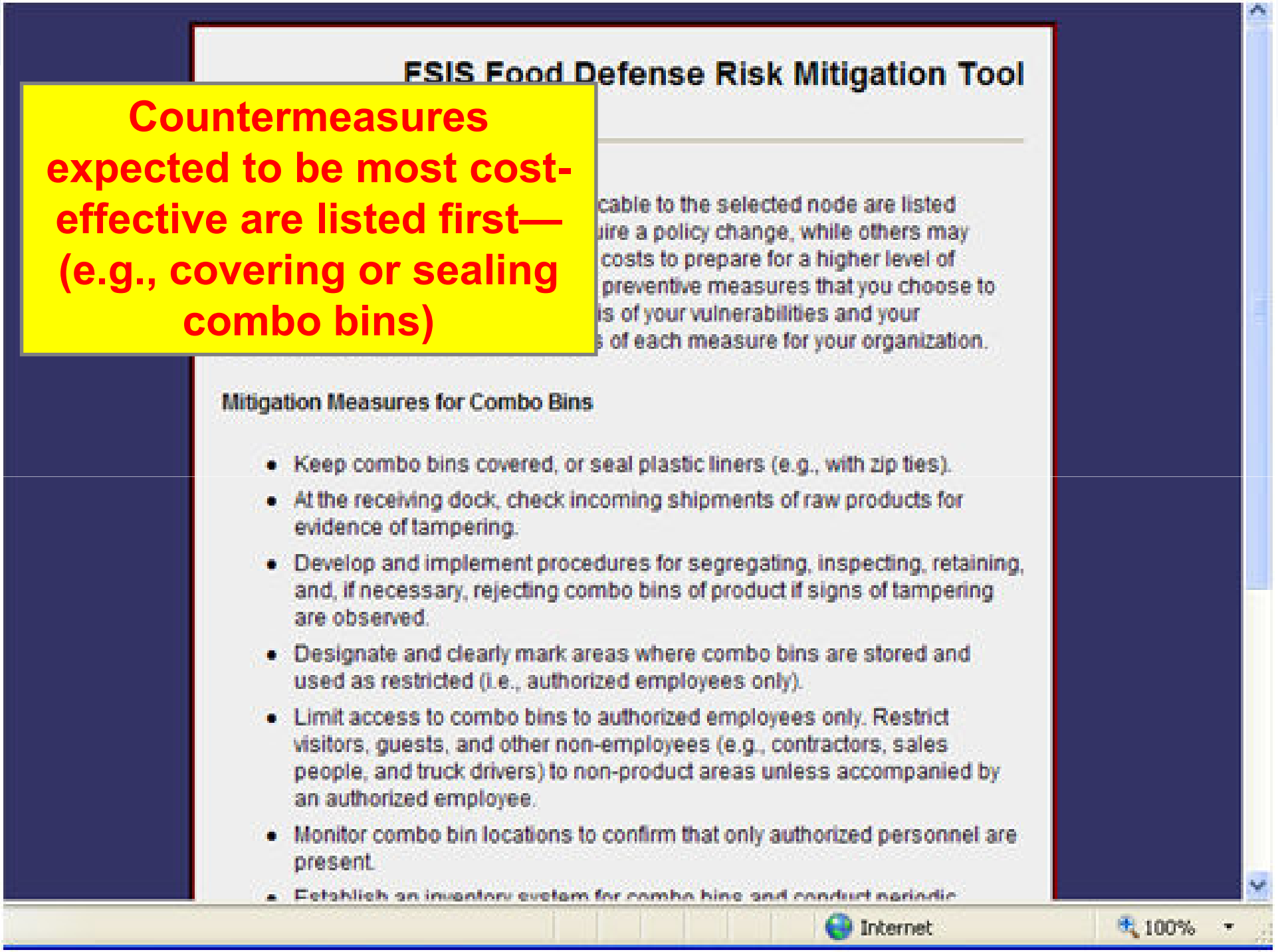
FSIS Food Defense Risk Mitigation Tool
Countermeasures expected to be most cost-effective are listed first—(e.g., covering or sealing combo bins)
cable to the selected node are listed
ire a policy change, while others may
costs to prepare for a higher level of
preventive measures that you choose to
s of your vulnerabilities and your
of each measure for your organization.
Mitigation Measures for Combo Bins
Keep combo bins covered, or seal plastic liners (e.g., with zip ties).
At the receiving dock, check incoming shipments of raw products for evidence of tampering.
Develop and implement procedures for segregating, inspecting, retaining, and, if necessary, rejecting combo bins of product if signs of tampering are observed.
Designate and clearly mark areas where combo bins are stored and used as restricted (i.e., authorized employees only).
Limit access to combo bins to authorized employees only. Restrict visitors, guests, and other non-employees (e.g., contractors, sales people, and truck drivers) to non-product areas unless accompanied by an authorized employee.
Monitor combo bin locations to confirm that only authorized personnel are present.
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100%

Online Mitigation Strategies Database

FDA version @

www.FDA.gov/FoodDefense

USDA version @

www.fsis.usda.gov/Food Defense & Emergency Response/Risk Mitigation Tool