

Food Defense



Food Defense

- 9/11 changed the way Americans think about society, safety, and the safety of our food supply
- US government has acknowledged the food system is vulnerable to terrorist attack



**“We have to be lucky once, you
have to be lucky 100% of the
time”**

PLO

Foreign Terrorism



Domestic Terrorism/ Protesters/ Criminals



Disgruntled Employees



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Why would an aggressor attack a company?

- **5 Reasons:**
 - **American Icon**
 - **Doing business where there is national unrest**
 - **Harm the business financially**
 - **Economic Terrorism**
 - **Political or Religious Reasons**

Agriculture is a potential target of Terrorism due to:

- **Relative ease of implementation**
- **Disruption of the nation's food supply and effect on the U.S. economy**
- **Public fear regarding the safety of their food purchases**
- **Public fear regarding the government's capacity to protect them against human-directed WMD**
- **Public apprehension resulting from media coverage**
- **Disruption of the United States' ability to export food products**

Has it happened before?

- **1984; Oregon Cult members added Salmonella to a salad bar**
 - 751 illness; 45 Hospitalized; no deaths
- **1996; Disgruntled employee adds *Shigella dysenteriae Type 2* to donuts**
 - 12 illness; 4 hospitalized; no deaths
- **2003; Disgruntled employee adds Nicotine-based Pesticide to 200 lbs Ground Beef**
 - 111 illness reported

Has it happened before?

- **2003; Animal Rights Group cut the break lines to 48 trucks and damaged refrigeration units in an Illinois seafood distributor**
 - “they are responsible for more than 1 billion deaths of sea creatures”
- **2003; A baker entered his competitors bakery, dressed as an employee, stole binders containing 66 recipes, valued over \$30 million.**

Intent

- **Foreign**
 - Death is a bonus
 - Economic Impact!!
- **Domestic**
 - Avoid Deaths
 - Economic
 - Publicity
 - Destroy Animal Agriculture, Environmental encroachment, anything synthetic
- **Disgruntled Employee**
 - Economic
 - Revenge!!



How do we protect our food supply?



Bioterrorism Preparedness Act (2002)



- **Expand FDA authority to manufacturing and import registration**
- **Tightened control of Biological Agents and toxins**
- **Expanded Ag security activities at USDA**
- **Criminal penalties for activities against animals and violation of the select agent rules**

Homeland Security Act - 2002



- Transferred Ag border inspections from APHIS to DHS (2,680 inspectors)
- Possession of Plum Island from USDA to DHS

SEVERE
SEVERE RISK OF
TERRORIST ATTACKS

HIGH
HIGH RISK OF
TERRORIST ATTACKS

ELEVATED
SIGNIFICANT RISK OF
TERRORIST ATTACKS

GUARDED
GENERAL RISK OF
TERRORIST ATTACKS

LOW
LOW RISK OF
TERRORIST ATTACKS

Facility Defense

- **How easy is it to:**
 - **Get on the parking lot**
 - **Get close to the building**
 - **Get into the building**
 - **Get into the production areas**
 - **Tamper with outdoor equipment**



Control of Movement In and Out of Facilities

- Do you know:
 - Your suppliers
 - Inspect your loads coming and going
 - Open un-sealed trucks
 - “Less-than-loads”
 - How many keys are there to the building and who has them



Employees

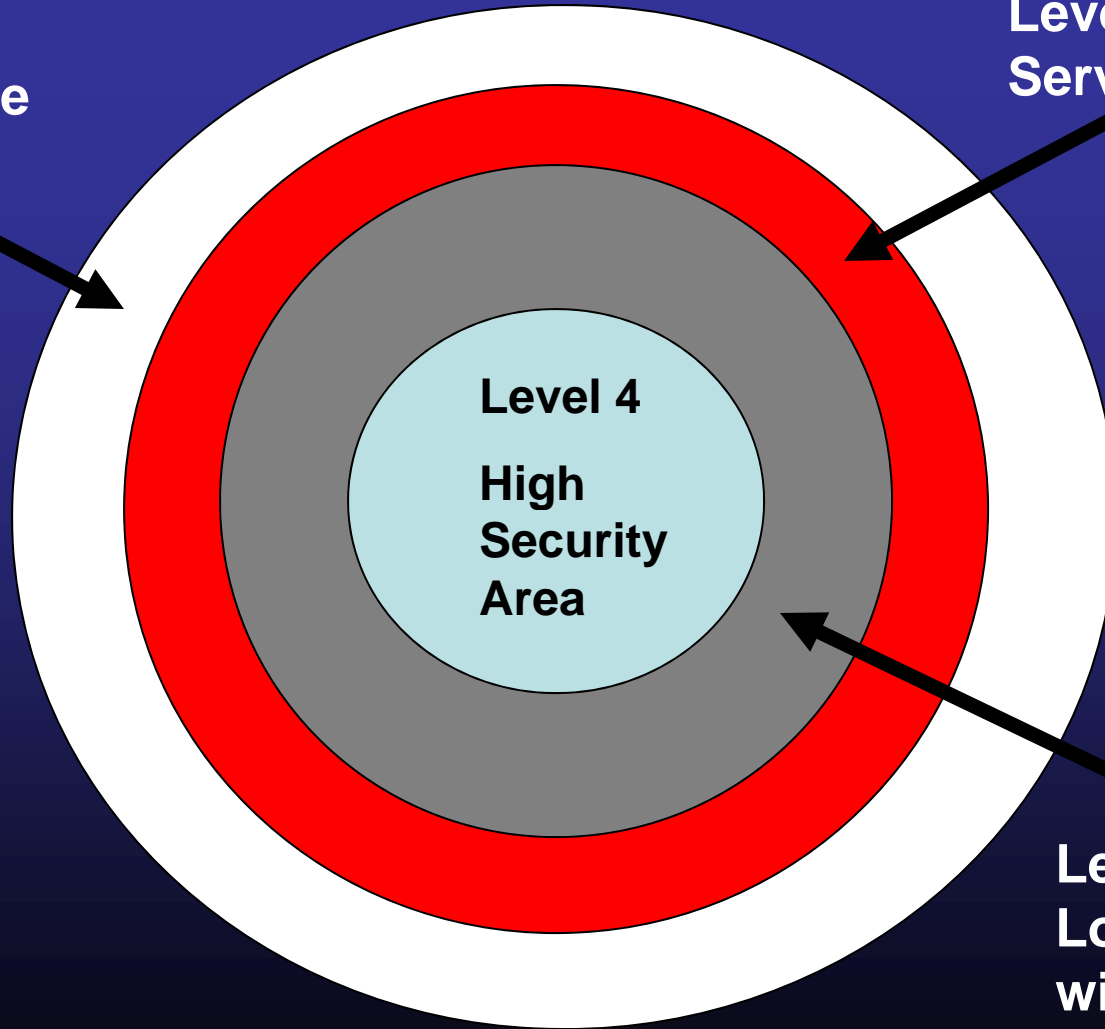
- **Do you:**
 - **Perform background checks, if so who would you not employ**
 - **Control movement**
 - **Allow employees to take equipment home**
 - **Know how to deal with disgruntled employees**



Facility Defense

Level 1;
Outside Fence

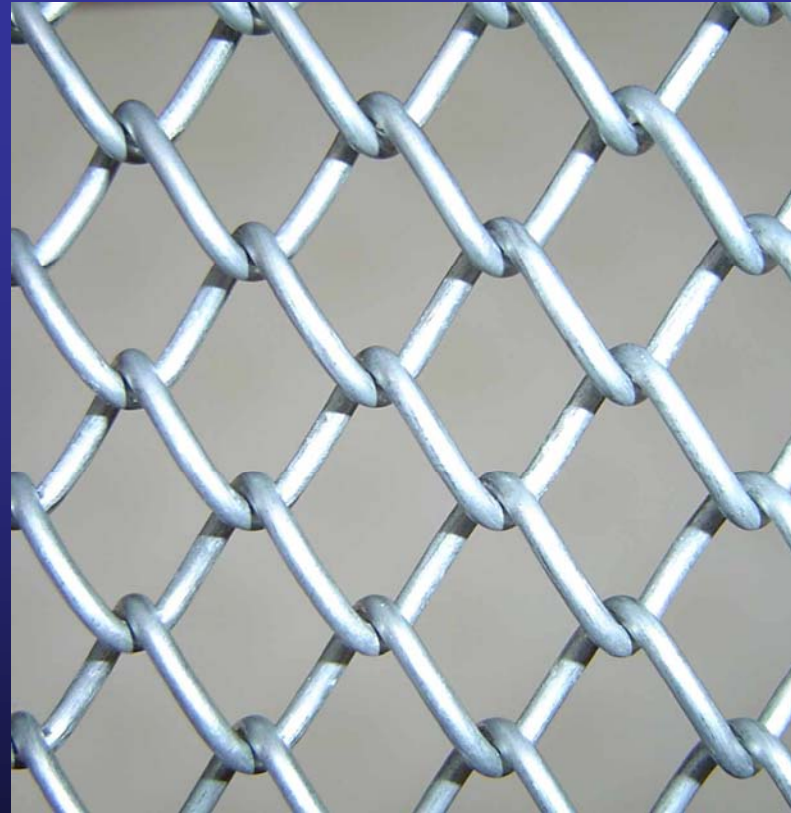
Level 2; Guard
Service



Level 3;
Locked doors
with limited
access

Level 1; Fencing

- 3 to 5 feet inside company property lines
- 6 to 8 feet high
- 2 ½, 9-gauge fencing
- Avoid solid fencing



Level 2; Guard Service

- 1 or 2 guard shack entrances before entering building
- Guard Service inside building
- Everyone must pass through guard service before entering plant
- Employee ID, Visitors identified
- Exterior lighting, security cameras



Level 3; Locked Doors, Limited Access

- **Main processing areas**
- **Hard Hat color coding or sticker code**
 - **White = USDA Inspector; Blue = USDA Grader**
 - **Yellow = Supervisor; Brown = Line worker; Green = Visitor, Black = Kill Floor; Purple = Maintenance**
- **Certain hard hat colors cannot enter certain areas**
- **May require key card or ID to enter processing area or certain processing areas**

Level 4; High Security Level

- Only a select few have access to these areas
- Could be areas that contain chemicals or bacteria that be used as a weapon
- Could be office areas that contain vital information on the companies day to day operations or recipes, etc



Pathogens as Bio-weapons

- *Bacillus cereus*
- *Campylobacter jejuni*
- *Clostridium botulinum*
- *Clostridium perfringens*
- *Escherichia coli* O157:H7
- *Listeria monocytogenes*
- *Salmonella* spp.
- *Staphylococcus aureus*

Diseases that can be used

- **Foot and Mouth disease**
- **Vesicular Stomatitis**
- **Swine Vesicular Disease**
- **Rinderpest**
- **Peste des petis Contagious Bovine Pleuropneumonia**
- **Lumpy Skin Disease**
- **Rift Valley Fever**
- **Bluetongue**
- **Sheep Pox and Goat Pox**
- **African Horse Sickness**
- **African Swine Fever**
- **Classical Swine Fever**
- **Highly Pathogenic Avian Influenza**
- **Newcastle Disease**
- **BSE**

SCARY!!



What can we do on the farm?

Farmer notices an increase in sick or dying animals

Veterinarian makes diagnosis

Veterinarian will notify the state

Within 24h a Foreign Animal Disease Diagnosticsian
(FADD) visits farm

Early Response Team (ERT) called to assist in
confirmation

Contain, Control, Eradicate (National USDA team
responds within 36h)

EDEN

- **Extension Disaster Education Network**
- **Educational program through universities**
Extension programs to educate processors about Food Defense



Country of Origin Labelling

COOL

- Part of the 2002 Farm Bill
- Made voluntary
- Re-appeared in the 2008 Farm Bill
- Concerns over what happened in China
- September 30th, 2008
- FSIS Directive 67-08



What has to be labeled?

- Beef
- Pork
- Lamb
- Goat (Chevon)
- Chicken
- Perishable Ag Commodities
- Peanuts
- Pecans
- Ginseng
- Macadamia Nuts



What is exempt?

- **Products for food service (restaruantns)**
- **Where meat is a part of the finished product; pepperoni pizza**



What else is exempt?

- **Required**

- Meat
- Fish
- Raw Peanuts
- Pork Chops
- Cantaloupes
- Raw Almonds
- Frozen Carrots
- Raw Shrimp
- Fresh Salmon
- Frozen Peas
- Bagged Lettuce

- **Exempt**

- Meat and Fish if less than \$230,000 per year
- Roasted Peanuts and Peanut Butter (processed)
- Ham and Bacon
- Fruit Salad, Trail Mix, Frozen Peas and Carrots (Mixtures are exempt)
- Cooked Shrimp, Smoked Salmon (cooking is considered processing)
- Canned Peas (Processed food)
- Bagged Mixed Salad Greens (mixtures)

Rules for Red Meats

- **Commodities packaged before September 30th, 2008 are exempt**
- **Livestock in the country on or before and continuously remain in country by July 15th, 2008 are considered a “Product of the US”**
- **Only Livestock born, raised, fed, and processed in the US shall be labeled “Product of the US”**

Rules for Red Meats

- **Those animals born in another country, and/or raised, fed, and processed in the US shall contain both countries labels**
 - **Product of Mexico and the US**
- **Animals transported to the US for immediate slaughter shall contain that countries label**
 - **Product of Canada**
- **Finished products entering the US shall contain exporters label**

Potential Problems

- **Ground Beef**
 - Can contain several animals from several countries
- **Consumers lack of knowledge about the globalization of Agriculture**
- **Responsibility falls on the Retailers**
- **Processors are labeling everything Product of Mexico, Canada, and US**



Problems

- **Canada is POed and had filed a lawsuit**
- **Five of the top ten pork processors will not buy pigs form Canada**
- **Beef wants more “Product of US” labels**
- **Costs \$2.5 billion in the first year**

Labels

- **Labels must:**
 - Appear on Package
 - Posted around commodity
- **Retailers must keep records for at least a year and produce them within 7 days if requested**

