FOOD AND AGRICULTURE SAFETY AND DEFENSE

Capability Definition

Food and Agriculture Safety and Defense is the capability to prevent, protect against, respond to, and recover from chemical, biological and radiological contaminants, and other hazards that affect the safety of food and agricultural products. This includes the timely eradication of outbreaks of crop diseases/pests, assessments of the integrity of the food producing industry, the removal and disposal of potentially compromised materials from the U.S. food supply, and decontamination of affected food manufacturing facilities or retail points of purchase or service. This also includes appropriate laboratory surveillance to detect human foodborne illness or food product contamination. It is accomplished concurrent to protecting public health and maintaining domestic and international confidence in the U.S. commercial food supply. Additionally, the public is provided with accurate and timely notification and instructions related to an event and appropriate steps to follow with regard to disposal of affected food or agricultural products and appropriate decontamination procedures.

Outcome

Threats to food and agriculture safety are prevented, mitigated, and eradicated; trade in agricultural products is restored; affected products are disposed of; affected facilities are decontaminated; public and plant health are protected, notification of the event and instructions of appropriate actions are effectively communicated with all stakeholders; and confidence in the U.S. food supply is maintained.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESF)s/Annexes:

ESF #8: Public Health and Medical Services
ESF #11: Agriculture and Natural Resources
Biological Incident Annex
Interim Draft Food and Agriculture Incident Annex
Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: *Develop and Maintain Plans, Procedures, Programs, and Systems*	
Critical Tasks	
Pro.A1a 5.2	Conduct vulnerability assessments of sector-specific critical infrastructure and key resources
Pro.B1b 1.1.2	Develop methods for emergency assessment of firms that manufacture, prepare, and hold U.S. Department of Agriculture (USDA) regulated commodities
Pro.B1b 1.1.3	Develop methods for emergency assessment of firms that manufacture, prepare, and hold U.S. Food and Drug Administration (FDA)-regulated commodities
Pro.B1b 1.2.3	Create emergency response plan for response to all food operations for retail, food service, mass

	feeding, and food processing facilities
Pro.B1b 1.2.2	Develop emergency guidelines and operation criteria for retail food, wholesale, and processing during disasters
Pro.B1b 1.3	Develop communications plan for food safety for regulated facilities and the general public
Pro.B1b 1.4.1	Develop guidelines or procedures for properly conducting a coordinated outbreak investigation of food and agricultural events
Pro.B1b 1.4.2	Develop plans or guidelines for properly disposing of contaminated food products or diseased crops
Pro.B1b 1.5	Develop, adapt, or implement plans to support incident command (IC), unified command (UC), or other agencies as needed for food and agricultural safety response
Pro.B1b 1.5.1	Develop procedures for providing surge staff to support IC and EOCs during a food event
Pro.B1b 1.4	Develop plans, procedures, and programs for responding to a food safety or agricultural disease event
Pro.B1b 1.3.1	Prepare food and agriculture emergency public information plans
Pro.B1b 1.3.2	Develop a food and agriculture crisis communications plan
Res.B1b 1	Develop plans, policies, procedures, and systems for responder safety and health
Pro.B1b 1.3.3	Develop plans, procedures, and policies for coordinating, managing, and disseminating public information regarding food and agricultural safety
Res.B1f 1.3.3	Plan and provide for external media support and operations
Res.B1f 1.1.5	Develop and maintain emergency declaration protocols and template
Res.B1f 1.2.4	Develop a communications network with State homeland security departments

Preparedness Measures	**Metrics**
Procedures are in place for: ▪ Food and agriculture surveillance activities (e.g., active searches, interviews, medical record review, compilation of data)Sample collection ▪ Maintaining chain of custody of laboratory samples ▪ After hours receipt of samples ▪ Triaging samples dependent on priority ▪ Traceback/trace forward investigations ▪ Rapidly informing the public once the contaminated food has been identified ▪ Coordinating public communications between government, academia, and the private sector ▪ Controlling contaminated products (i.e., seizure, product quarantine, recall, embargo, condemnation, administrative detention) ▪ Appropriate disposal of affected food and/or agricultural products ▪ Appropriate decontamination of affected food facilities ▪ Quick recall of affected food or agricultural products from the marketplace ▪ Verifying effectiveness and timeliness of food and agricultural product recalls	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No
Plans and procedures for responding to a food /agricultural event identify the proper food and agricultural authorities	Yes/No
Communication plans and procedures for responding to a food/agricultural event provide for dissemination of accurate, timely, and accessible information to the public, media, and support agencies	Yes/No

Emergency response plans include all food operations (e.g., retail, food service, mass feeding, food processing facilities)	Yes/No
Memoranda of agreements (MOAs) to facilitate response are in place	Yes/No
Field staff or other designated first responders are appropriately qualified	Yes/No
Redundant emergency communication capabilities are in place	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*	
Critical Tasks	
Pro.B1b 2.1.1	Develop and conduct emergency food safety response training to field staff and managers of State/local food programs having responsibility for food safety response (training should include appropriate job safety training)
Pro.B1b 2.1.2	Provide food safety training to responders and volunteers
Pro.B1b. 2.2	Develop and implement exercise programs for food and agricultural safety and defense
Preparedness Measures	**Metric**
Field staff or other designated first responders have: ▪ Hazard awareness training ▪ NIMS Training	 Yes/No Yes/No
HSEEP-compliant exercises to evaluate food and agricultural safety and defense are routinely conducted	Yes/No

Performance Tasks and Measures/Metrics

Activity: *Direct Food and Agriculture Safety and Defense Operations*	
Definition: In response to a notification of an existing threat of food contamination or crop disease, provide the management and coordination of the epidemiological and food establishment investigations as well as appropriate food and crop control measures to stop further cases of illness or disease.	
Critical Tasks	
Pro.B1b 3.3.2	Dispatch food and agriculture personnel to location of suspected contamination
Res.B1a 4	Activate the on-site incident command system (ICS)
Pro.B1b 3.4.4	Request food and agriculture resources needed for response to field operations
Pro.B1b 3.1.2	Coordinate with Federal, State, and local agencies to ensure the safety and security of meat, poultry, and egg products in retail groceries and food service establishments and institutions
Pro.B1b 3.1.3	Coordinate with Federal, State, and local agencies to ensure the safety and security of products in retail and food service establishments and institutions
Pro.B1b 3.4.1	Coordinate food and agriculture emergency management plans at the local, State, and national levels

Res.B1f 5.1.1	Coordinate the provision of timely and accurate emergency public information through the Joint Information System (JIS)
Res.B1c 8.1.1	Provide direction, information, and support as appropriate to IC or unified command UC and joint field offices
Res.B1c 4	Activate the Emergency Operations Center (EOC)
Res.B1c 3	Direct and coordinate EOC operations
Pro.B1b 3.4.5	Establish and maintain food and agricultural safety response communication systems
Pro.B1b 3.4	Coordinate food and agricultural safety response operations and support
Pro.B1b 3.2	Manage surveillance activities for agriculture and natural resources
Pro.B1b 3.3	Coordinate food and agriculture investigation activities
Pro.B1b 3.3.4	Coordinate food and agriculture evidence preservation procedures
Pro.B1b 3.5.1	Coordinate food recovery programs
Pro.B1b 3.5.2	Coordinate food facility decontamination
Pro.B1b 3.5.2.1	Coordinate cleaning and decontamination of affected food facilities
Pro.B1b 3.5.3	Coordinate the disposal of contaminated food
Pro.B1b 3.5.4	Coordinate agricultural recovery programs
Pro.B1b 3.1.6	Ensure the safety, efficacy, and security of regulated foods, the blood supply, drugs, medical devices, and other U.S. Department of Health and Human Services (HHS)-regulated products
Pro.B1b 3.1	Ensure the Nation's commercial supply of food is safe and secure following a catastrophic incident
Pro.B1b 3.3.1	Implement guidelines or procedures for properly conducting a coordinated outbreak investigation of food and agricultural events
Pro.B1b 3.3.4.1	Ensure close coordination and cooperation among regional, State, Federal, and international agencies and with the private sector and nongovernmental associations to facilitate food and agriculture response efforts
Pro.B1b 3.2.1	Direct agricultural processes for surveillance and testing and isolation or quarantine for threats to agricultural assets and the food supply
Pro.B1b 3.3.3	Provide food and agriculture laboratory and diagnostic support, subject matter expertise, and technical assistance
Pro.B1b 3.4.3	Ensure the adequacy of food and agriculture resources
Pro.B1b 3.4.3.2	Request subject matter expertise from supporting agencies to assist in the response and recovery effort
Pro.B1b 3.4.3.3	Establish regional and State plans and protocols for food and agricultural safety response and requests for assistance
Pro.B1b 3.4.2	Activate food and agriculture safety and defense personnel

Performance Measures	**Metric**
Appropriate numbers of trained personnel have been identified to respond to the State or local EOC and possibly the Joint Operations Center	Yes/No
Boilerplate consumer messages have been developed	Yes/No

Assets for decontamination procedures have been identified	Yes/No
Decontamination is conducted in accordance with local protocol for all contaminated personnel, equipment, and animals	Yes/No
Return of food products is monitored	Yes/No
Protective gear is available for field staff or other designated first responders	Yes/No

Activity: *Conduct Surveillance*

Definition: In response to a notification that food products are contaminated or that crops are diseased, establish and implement a plan to expand on-going surveillance activities to focus on additional food products, crops, and facilities that might be affected.

Critical Tasks	
Res.B2d 5.1	Conduct epidemiological investigations as surveillance reports warrants, and coordinate Federal, State, and local veterinary assistance assets/services
Pro.B1b 4.2	Search actively for food and agriculture cases
Pro.B1b 4.2.2.2	Initiate food and agriculture database and data management
Pro.B1a 4.3.1	Develop basic case descriptions by conducting interviews and reviewing medical records
Pro.B1b 4.3	Conduct food and agriculture laboratory detection and confirmation
Pro.B1b 4.3.3	Disseminate food and agriculture laboratory testing results to appropriate stakeholders/partners
Pro.B1b 4.3.2	Maintain chain-of-custody of all food and agriculture evidence
Pro.B1b 4.2.2.1	Integrate surveillance findings related to food and agriculture
Pro.B1b 4.2.2	Compile information about threats to food
Pro.B1b 4.3.1	Use the results from a food sample analysis to determine the breadth of contamination

Performance Measures	Metric
Time in which a surveillance plan is implemented upon determination of a specific food product associated with illness or the presence of a diseased crop	Within 24 hours from confirmed food product association or crop disease
Time in which individual or joint USDA/FDA/DOJ investigation into source of contamination of identified food product or diseased crop is initiated	Within 24 hours from confirmed food product association or crop disease
Frequency and quality of inspection for surveillance of food products at manufacturing, distribution, retail, or food service facilities is conducted in accordance with Federal and State protocol	Yes/No
Federal/State authorities had access to laboratories with validated methods for detection/identification of pathogens, chemical, biological, and radiological contaminants	Yes/No

Activity: *Trace Suspect Products*

Definition: Conduct investigations to determine the source(s) of contamination and identify other products, crops, and facilities that could be contaminated.

Critical Tasks	
Pro.B1b 5.1.1	Collect and preserve contaminated food and agriculture evidence
Pro.B1b 5.1.2	Collect and preserve non-contaminated food and agriculture evidence
Pro.B1b 5.2	Inspect the safety and security of the food infrastructure in the affected area
Pro.B1b 5.3	Inspect the safety and security of the agricultural infrastructure in the affected area
Pro.B1b 5.2.3	Inspect and monitor meat, poultry, and egg establishments that can continue to operate in the affected area
Pro.B1b 5.2.2	Inspect food facilities that can continue to operate in the affected area
Pro.B1b 5.2.4	Use laboratory testing and field investigations to identify products that are safe and fit for human consumption
Pro.B1b 5.1.4	Conduct product tracing to determine the source, destination, and disposition of adulterated or contaminated products
Pro.B1b 5.2.1	Conduct inspection and monitoring of food products and establishments in affected areas
Pro.B1b 5.3.1	Conduct inspection and monitoring of agriculture products and establishments in affected areas
Pro.B1b 5.1.3	Generate possible associations of transmission, exposure, and source of food and agriculture events
Pro.B1b 5.1.5	Identify possible sources of food and agricultural safety event
Pro.B1b 5.4	Identify populations and locations at risk from food and/or agricultural safety event

Performance Measures	Metric
Time in which trace back investigation is initiated following notification of contaminated food product involvement	Within 1 hour from notification
Time in which trace forward investigation was initiated following notification of contaminated food product involvement	Within 1 hour from notification
Time in which epidemiological investigation was initiated following report to health department	Within 3 hours from report
Time in which epidemiological investigation was completed following report to health department	Within 36 hours from report
Time in which analysis of samples was conducted after samples reach the lab	Within 1 hour from receipt at lab
Laboratory samples were analyzed within time period appropriate for type of contaminant and whether screening and/or confirmatory analysis was conducted	Yes/No
Percent of potentially affected food facilities identified	100%
Time in which FBI was notified for an event that appeared to be due to intentional contamination	Within 6 to 12 hours after determination

Activity: *Implement Control Measures for Contaminated Food Products or Diseased Crops*

Definition: Implement product recalls/embargoes, alert the public about the situation, and take control of contaminated facilities and products or diseased crops to ensure contaminated products do not enter the food supply and diseased crops are not further distributed.

Critical Tasks	
Pro.B1b 6.3	Secure the contamination source and affected areas during a food and agriculture event
Pro.B1b 6.4.7	Provide appropriate information to the public regarding disposal of potentially contaminated food
Pro.B1b 6.2.1	Determine the need for a food embargo or detention
Pro.B1b 6.2.2	Determine the need for food condemnation, retention, or seizure
Pro.B1b 6.2.3	Determine the need to stop the movement of food
Pro.B1b 6.4.2	Control all identified food safety and inspection service-inspected products at inspected establishments that are suspected of being contaminated through product recall, administrative detention, and plant closures
Pro.B1b 6.4.3	Control any foodstuffs or other HHS-regulated products suspected of being contaminated following an establishment's inspections through product recall, administrative detention, and plant closures
Pro.B1b 6.4.4	Control all identified products at inspected facilities suspected of being contaminated through product recall and administrative detention
Pro.B1b 6.4.5	Stop all interstate movement of regulated plant articles and means of conveyance as needed
Pro.B1b 6.4.6	Provide for embargoed food storage

Performance Measures	Metric
Food recall was issued	Yes/No
Recalls were announced to the public	Yes/No
Percent of potentially affected locations secured to prevent spread of contamination	100%

Activity: *Conduct Product Disposal and Surface and Food Facility Decontamination*

Definition: Dispose of contaminated food products or diseased crops in an environmentally safe manner that prevents its use as a food or food product as well as utilize appropriate procedures for surface and facility decontamination.

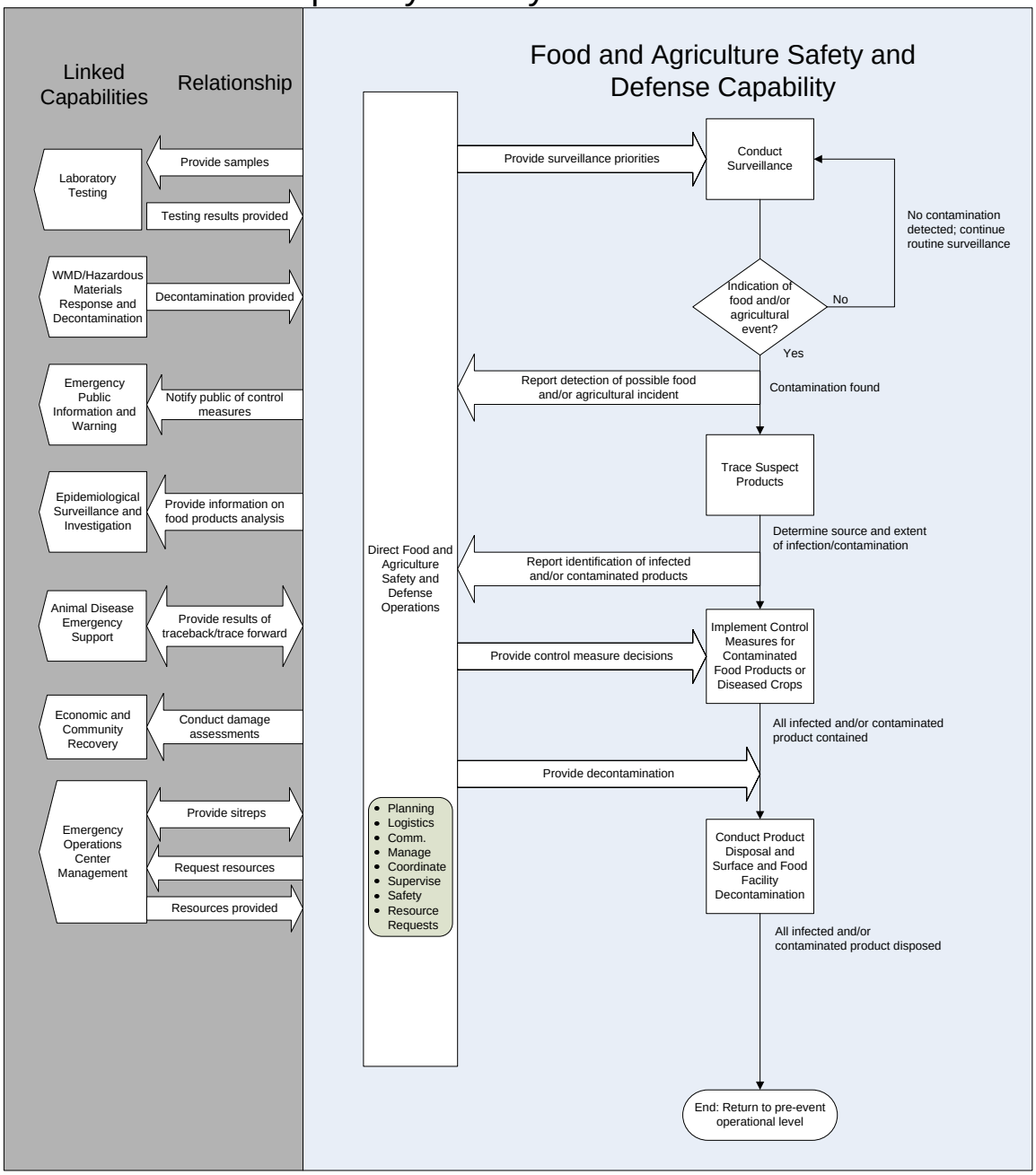
Critical Tasks	
Pro.B1b 7.1.1	Identify assets for food and agriculture decontamination activities
Pro.B1b 7.1	Implement food and agriculture hazardous material disposal plan
Pro.B1b 7.1.2	Conduct surface and facility decontamination
Pro.B1b 7.1.3	Perform food and agriculture clean-up operations
Pro.B1b 7.1.4	Dispose of contaminated food

Performance Measures	Metric
Hazardous Material Disposal Plan was implemented	Yes/No

Linked Capabilities

Linked Capability	Relationship
Laboratory Testing	Food and Agriculture Safety and Defense provides samples to Laboratory Testing for testing
WMD and Hazardous Materials Response and Decontamination	Food and Agriculture Safety and Defense receives technical decontamination from WMD and Hazardous Materials Response and Decontamination
Emergency Public Information and Warning	Food and Agriculture Safety and Defense develops control measures for Emergency Public Information and Warning, which will be released to the public
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation provides information to Food and Agriculture Safety and Defense on the food product associated with illness
Animal Disease Emergency Support	Animal Disease Emergency Support will provide information to Food and Agriculture Safety and Defense if contaminated animals are associated with human illness
Economic and Community Recovery	Food and Agriculture Safety and Defense conducts damage assessments for Economic and Community Recovery
Emergency Operations Center Management	Food and Agriculture Safety and Defense requests resources from Emergency Operations Center Management, who then in turn provides the requested resources. Emergency Operations Center Management and Food and Agriculture Safety and Defense both provide situational reports to each other

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Incident Command System	A fully expanded incident command system (ICS) includes subject matter experts (SMEs) and policy staff. Subject matter experts include microbiologists, toxicologists, food technologists, veterinarians, epidemiologists, etc. For large incidents, assume 4 – 6 SMEs and 4 - 6 policy staff per 24 hour period above normal staffing levels.
FDA Emergency Operations Center	This resource manages the FDA Emergency Operations Center facility 24 hours per day. In addition to normal staffing levels, it requires 24 – 30 support staff & SMEs (or 8 – 10 per 8 hour shift).
USDA Emergency Operations Center	This resource manages the USDA Emergency Operations Center facility 24 hours per day. In addition to normal staffing levels, it requires 21 additional staff (including SMEs) or 7 per 8-hour shift.
USDA/FSIS Emergency Management Committee (EMC)	The EMC manages large-scale food emergencies and non-routine incidents in an established Situation Room. It is composed of the most senior managers from all program areas. Operations of EMC managed by the Biosurveillance and Emergency Response Staff (9 staff members)
State Emergency Operations Centers	The State EOC manages the response within each State. The normal staffing level is 60 staff; in addition, it would require 18 to 24 SMEs and policy staff per 24 hour period (or 6 – 8 per 8 hour shift).
Local Emergency Operations Center	The Local EOC manages the response within each locality. Typically includes 5 to 20 staff, but this is entirely dependent on the size of the locality.
Human Disease Surveillance Team	Team of experts to track all reportable disease and specified syndromes within a defined area. Each team includes 1 supervisor (MD, PhD, or Doctor of Veterinary Medicine (DVM)), 2 epidemiologists, 1 IT staff per, and 1 statistician per 8 hour shift.
Food Investigation Team	Field teams of 4 people to collect product samples and food samples, collect traceback and trace forward information, conduct investigations, and coordinate responses at food facilities.
Food Facility Decontamination Team	Field teams of 4 people to decontaminate affected food facilities.
Food Facility Decontamination Team Supervisors	Supervisors to manage Food Facility Decontamination Teams. One supervisor can manage 10 team staff.
Food Facility Decontamination Team SMEs	Subject Matter Experts to assist Food Facility Decontamination Teams. One SME can assist at every 20 facilities.
Disposal Team	Field teams of 4 people to dispose of affected food products.
Semi-tractor trailers	Equipment used for disposal of affected food products.
Disposal Team Supervisors	Supervisors to manage food facility Disposal Teams. One supervisor can manage 10 team staff.
Disposal Team SMEs	Subject Matter Experts to assist food facility Disposal. One SME can assist at every 20 facilities.

Resource Elements	Components and Description
Sample Analysis Laboratory Analysts	Analysts in a state laboratory capable of analyzing samples. Assume laboratory participates in Food Emergency Response Network
Sample Analysis Laboratory Supervisors	One supervisor for every 10 laboratory analysts.
Confirmatory Testing Laboratory Analysts	Analysts in a state laboratory capable of analyzing confirmatory samples
Confirmatory Testing Laboratory Supervisors	One supervisor for every 10 laboratory analysts
Federal Risk Communication Staff	Risk communication personnel from Federal agencies involved in response.
State Risk Communication Staff	Risk communication personnel from state agencies involved in response.
Federal Embargo/Recall Team	Team of recall staff and compliance officers from Federal agencies participating in response at one state. Personnel: 5 Federal recall staff and 6 – 10 compliance officers per team.
State Embargo/Recall Team	Team of recall staff and compliance officers from state agencies. Personnel: 5 recall staff and 10 compliance officers per team.
Federal Public information staff	Public information personnel from Federal agencies involved in response.
State Public information staff	Public information personnel from state agencies involved in response.
Law enforcement – secure scene	Coordinated Federal/State/local response
Law enforcement – investigate event	Coordinated Federal/State/local response
IT support personnel	Personnel to provide technical support for IT equipment provided to persons deployed
IT support equipment cache	One Blackberry, one cell phone, one laptop, and one portable printer for each person deployed
Additional transportation	Vehicles to transport personnel

Planning Assumptions

Scenario-Specific

- Although applicable to several of the 15 National Planning Scenarios except for blister agents and nerve agents, the capability planning factors were developed from an in-depth analysis of the Food Contamination scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- The capability applies to a wide range of incidents and emergencies including accidental or deliberate disease outbreaks, natural disasters, nuclear and conventional events with potential for contamination of the food supply.
- The identification of an intentional contamination incident involving a food product in the U.S. would have national implications. Because of the movement of food products around the US, it is highly probable that multiple food facilities in multiple States would be contaminated. Even States that

eventually are found to have no contaminated product will initially require a stepped up effort to ensure that no contaminated product is in their State.

- If terrorists were to introduce a chemical or biological agent into a food product at multiple sites simultaneously, the requirements for resources would increase proportionately and exist in many States simultaneously. The requirements for tactical (incident command) resources will increase proportionately with the amount of product/products contaminated.
- It is likely that States would share resources, yet States would have to balance the sharing of resources with their need to protect public health within their State. The amount of tactical resource requirements would vary depending on the concentration of food facilities.
- In high concentration areas, the spread may be rapid and many food facilities that purchased contaminated food may be affected. In areas with low concentration of food facilities/people, logistical obstacles such as driving time or distance between involved locations may present additional challenges.
- The multiplication factors used to gear up from a single point introduction incident to a multiple (national) site introduction assumes resource requirements to increase proportionately with the number of introductions. In estimating national resource requirements, it was assumed the scenario would affect 25 States directly, but all 50 States would have increased workload. The time to resolve the scenario would vary depending on number of site introductions and multiple different food items contaminated.
- This scenario is very limited in scope and only lists a food commodity regulated by the U.S. Department of Agriculture (ground beef). The Food and Drug Administration regulates 80 percent of the nation's food supply – everything except meat, poultry, and egg products which are regulated by USDA. Other scenarios could have potentially more far reaching effects. This is based on vulnerability assessments conducted by FDA and USDA.
- Assume all response personnel in key positions are able to respond to their respective response positions after the contaminant has been introduced and they respond as expected.
- Assume that sector partners are connected to an information sharing and analysis or fusion system concept where preventative and protective measure information is proactively being shared.
- Lack of infrastructure – electricity, phones, transportation, etc., will affect the ability to effectively communicate and will significantly affect the ability to plan appropriately or to respond to an incident. For example, if the roads are non-passable due to a natural disaster, this will affect the ability to get to the affected area and ensure the safety and security of the food supply.
- Assume that Multi-Agency Coordination is adequately being addressed at the State, Federal and local levels and the agencies are coordinating as expected.
- The following information is needed to effectively detect/respond to/recover from to an event:
  - Quantity of product affected.
  - Distribution of product.
  - Product type or types contaminated.
  - Laboratory capability.
  - Ability to determine the cause of illness.
  - Ability to determine the food item associated with illness or to rule out certain food items.
  - Ability to trace back product.
  - Ability to trace forward product.
  - Ability to effectively recall all affected product.
  - Appropriate disposal of recalled product.
  - Appropriate decontamination of food facility or other locations where food was available for purchase.

- Risk communication to consumers about appropriate food disposal instructions.
- Communication with international partners.
- Recovery Timeline could potentially be months due to the breadth of the event.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Food Contamination)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Incident Command Center	One fully expanded IC center can respond to an incident in one state, if staffed with additional personnel (4 – 6 SMEs and 4 - 6 policy staff) per 24 hour period.	Assume 25-state incident requiring SME and policy staff above normal staffing levels. Personnel above normal staffing 4-6 SME* per 24 hours 4-6 policy staff per 24 hours	One IC center and one back-up per state affected.
FDA Emergency Operations Center	Capable of responding 24 hours per day to a large national incident for one month, assuming 8 – 10 staff per 8 shift on top of normal staffing	Assume 25-state incident. In addition to normal staffing, the EOC would need 8-10 people/8 hour shift	One national FDA EOC with 24 - 30 staff (per 24 hours) in additional to normal staffing.
USDA Emergency Operations Center	Capable of responding to a large national incident for one month, assuming 7staff per 8 shift on top of normal staffing	Assume 25-state incident. In addition to normal staffing, the EOC would need 7 SMEs/8 hour shift	One national USDA EOC with 21staff (per 24 hours) in additional to normal staffing
USDA/FSIS Emergency Management Committee (EMC)	Capable of responding to large national incident, 24 hours per day.	Assume 25-state incident. Composed of the most senior representatives of all program areas.	1 EMC
State Emergency Operations Centers	Capable of managing the response within each State, assuming surge staffing numbers. 60 Staff is the normal operating number In addition to normal staffing, 6-8 SMEs and policy staff would be needed/ 8 hour shift	Assume 25-state incident requiring SME and policy staff above normal staffing levels. Personnel above normal staffing 6-8 SMEs per 8 hour shift	One EOC and one back-up per state affected.
Local Emergency	Capable of responding to a local incident,		

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Operations Centers	typically with 5 - 20 staff.		
Human Disease Surveillance Team	Team capable of responding to an incident within one state for one month Consists of 1 supervisor (MD, PhD, or Doctor of Veterinary Medicine (DVM)) per 8 hour shift, 2 epidemiologists per 8 hour shift, 1 IT staff per 8 hour shift per team, 1 statistician per 8 hour shift per team	Assume 25-state incident requiring 100% staff needs for 30 days at each location.	One team per state
Food Investigation Team	Each team is capable of providing coordinated Federal/State/local response to food facilities, conduct investigations, and collect samples at 40 food facilities within a State Each team consists of 4 people per food facility for 2 days. Teams may be split in order to cover a larger number of facilities	Initially all 50 states will be on heightened alert and will be investigating food facilities in each State Assume 1000 food facilities per State are potentially contaminated	1000 facilities = = 25 teams per state (4 people per team) = 100 people per state = 5000 staff nationally
Food Facility Decontamination Team	One field team of 4 people capable of providing coordinated response at 10 affected food facilities Assume that decontamination takes 2 days per facility	Assume 25-state incident Assume 100 food facilities per State are contaminated	10 teams per state (4 people per team) For 25 States = 1000 staff nationally
Food Facility Decontamination Team Supervisors	1 supervisor can manage every per 10 team staff employees.	Assume 25-state incident Assume 100 food facilities per State are contaminated	10 teams per state = 40 staff per state = 4 supervisors per state For 25 States = 100 supervisors nationally
Food Facility	1 SME can assist at	Assume 25-state incident	5 SMEs per state

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Decontamination Team SMEs	every 20 facilities	Assume 100 food facilities per State are contaminated	For 25 States = 125 SMES nationally
Disposal Team	One field team of 4 staff capable of response to dispose of affected food products at one site	Assume 50 disposal sites per State	50 Teams per state (200 staff) For 25 States = 1250 teams (5000 staff) nationally
Semi-tractor trailers	5 semi-tractor trailers are needed per affected facility	Assume 100 facilities per State have product that needs to be properly disposed	100 facilities per state = 500 semi-tractor trailers For 25 States = 12,500 semi-tractor trailers nationally
Disposal Team Supervisors	1 supervisor per 10 employees on disposal team	Assume 50 disposal sites per State	50 sites = 50 teams per state = 200 staff = 20 supervisors per state For 25 States = 500 supervisors nationally
Disposal Team SMEs	1 SME for every 10 disposal sites	Assume 50 disposal sites per State	5 SMEs per state For 25 States = 125 SMEs nationally
Sample Analysis Laboratory Analysts	20 analysts are capable of analyzing 200 samples/lab/week in one state 20 lab analysts/State lab	Assume 50 states are involved Assume at least one Food Emergency Response Network lab per State	Nationally = 1000 laboratory analysts
Sample Analysis Laboratory Supervisors	Assume 1 supervisor per 10 employees	Assume 50 states are involved	Nationally = 100 supervisors
Confirmatory Testing Laboratory Analysts	5 Analysts capable of analyzing 50 confirmatory samples/lab/week in one state	Assume 50 states are involved	Nationally = 250 laboratory analysts
Confirmatory Testing Laboratory Supervisors	Assume 1 supervisor per 10 employees	Assume 50 states are involved	Nationally = 25 laboratory supervisors
Federal Risk Communication Staff	Capable of coordinating the response within a given area Need 5 personnel per Federal agency involved	Assume 5 Federal agencies are involved	Nationally = 25 staff at Federal level
State Risk Communication Staff	Capable of coordinating the response within a	Assume all 50 states are involved	Nationally = 250-500 state staff

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
	given area Assume 5-10 personnel per State involved		
Federal Embargo/Recall Team	One team can coordinate the Federal response in each state Each team comprises 5 recall staff 6-10 Federal compliance officers (FDA and USDA)	Assume response in 25 states	One Federal Embargo/Recall Team per state 25 States = 125 recall staff and 150-250 Federal compliance officers nationally
State Embargo/Recall Team	One team can coordinate the response in each state Each team comprises 10 compliance officers and 5 recall staff	Assume response in 25 states	One State Embargo/Recall Team per state 25 States = 250 state compliance officers and 125 state recall staff nationally
Federal public information staff	5 staff per Federal agency	Assume 5 Federal agencies are involved	25 staff at Federal level nationally
State public information staff	4 staff /8 hour shift at State level	Assume 50 states	Per State = 12 staff/24 hours 50 states = 600 staff nationally
Law enforcement staff – secure scene	2 staff capable of response at each contaminated facility	Assume 25 states Assume 100 facilities are contaminated per State	2 staff x 100 facilities = 200 per state x 25 States = 5000 personnel nationally
Law enforcement staff – investigate event	2 staff capable of response at each contaminated facility	Assume 25 states Assume 100 facilities are contaminated per State	2 staff x 100 facilities = 200 per state x 25 States = 5000 personnel nationally
IT support staff	One IT support person per 20 staff deployed	Assume 12000 personnel deployed in 25 states	Nationally =600 IT support staff
IT support equipment	Cache of one Blackberry, one cell phone, one laptop, and one portable printer for each person deployed	Assume 12000 people deployed in 25 states	Nationally = 12,000 IT support equipment caches: 12,000 blackberries, 12,000 cell phones, 12,000 laptops, 12,000 portable printers
Additional transportation	One vehicle per two people deployed	Assume 120 people deployed per state Assume 3000 people deployed in 25 States	240 vehicles per state 6,000 vehicles nationally

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Incident Command Center	Resource Organization	2	Per State (central and backup).	State	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products Conduct Product Disposal and Food Facility Decontamination
FDA Emergency Operations Center	Federal Resource Organization	1	Nationally	Federal (HHS/FDA)	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products
USDA Emergency Operations Center	Federal Resource Organization	1	Nationally	Federal (USDA)	Direct Food and Agriculture Safety and Defense Operations Trace Suspect Products Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
USDA/FSIS Emergency Management Committee (EMC)	Federal Resource Organization	1	Nationally	Federal (USDA/ FSIS)	Direct Food and Agriculture Safety and Defense Operations Trace Suspect Products Implement Control Measures for Contaminated Products
State Emergency Operations Center (EOC)	Resource Organization	2	Per State (central and backup)	State	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products Conduct Product

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Disposal, Surface, and Food Facility Decontamination
Human Disease Surveillance Team	Non-NIMS Resource Organization	1	Per State	State	Surveillance
Food Investigation Team	Non-NIMS Resource Organization	25	Per State	State	Surveillance Trace Suspect Products
Food Facility Decontamination Team	Non-NIMS Resource Organization	10	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Food Facility Decontamination Team Supervisors	Non-NIMS Resource Organization	4	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Food Facility Decontamination SMEs	Non-NIMS Resource Organization	5	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team	Resource Organization	50	per State	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Semi-tractor trailers for disposal	Equipment	500	Per state	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team Supervisors	Personnel	20	Per state	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team SMEs	Personnel	5	Per State	State	Conduct Product Disposal, Surface, and Food Facility Decontamination

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Sample Analysis Laboratory Analysts	Personnel	1000	Nationally	State	Surveillance
Sample Analysis Laboratory Supervisor	Personnel	100	Nationally	State	Surveillance
Confirmatory Testing Laboratory Analysts	Personnel	250	Nationally	State	Surveillance
Confirmatory Testing Laboratory Supervisor	Personnel	25	Nationally	State	Surveillance
Federal Risk Communication Staff	Personnel	25	Nationally	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Risk Communication Staff	Personnel	250 - 500	Nationally	States	Implement Control Measures for Contaminated Products
Federal Embargo/recall Team	Non-NIMS Organization	1	Per State	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Embargo/recall Team	Non-NIMS Organization	1	Per State	State	Implement Control Measures for Contaminated Products
Federal Public information staff	Personnel	25	Nationally	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Public information staff	Personnel	12	Per State	State	Implement Control Measures for Contaminated Products
Law enforcement staff – secure scene	Personnel	200	Per State	State	Implement Control Measures for Contaminated Products
Law enforcement staff - investigate event	Personnel	200	Per State	State	Implement Control Measures for Contaminated Products
IT support staff	Personnel	600	Nationally	State	All Activities
IT equipment cache	Equipment	12000	Nationally	State	All Activities
Additional transportation	Vehicles	240	Per State	State	Trace Suspect Product Implement Control Measures for Infected and/or Contaminated Products

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Conduct Product Disposal, Surface, and Food Facility Decontamination

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