



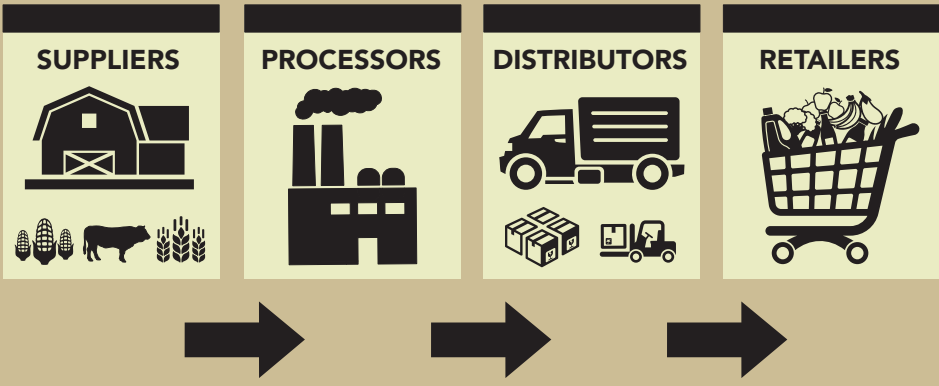
# THE PATH TO PROACTIVE FOOD DEFENSE

## GLOBAL SUPPLY CHAIN





-  **20%** of goods are imported
-  **400,000** processors registered with FDA
-  **1 LOAF** of bread can contain ingredients from 14 countries

-  **2 MILLION** farms
-  **2 MILLION** trucks
-  **5 MILLION** trailers

## WHO'S INVOLVED



## MALICIOUS INTENT

-  Foreign/Domestic Terrorist Organization or Activist
-  Economically Motivated Adulteration
-  Counterfeiting/ Diversion/ Tampering
-  Disgruntled Employees (intentional contamination)

## THREAT

For food safety and quality assurance, these are the most significant concerns surrounding the food supply:



## PROTECTION

Protect the food supply chain with the Four A's of a proactive Food Defense Plan:


### THE FACTS


#### VULNERABILITIES IDENTIFIED BY FDA


- Mixing, grinding
- Ingredient handling
- Bulk liquid receiving and loading
- Bulk liquid storage and handling

The U.S. imports about 20% of the food we eat



 **80%** of seafood is imported

 **50%** of fruits are imported

 **ASSESS**

Vulnerability assessment of key process steps where food is most vulnerable to adulteration

### ECONOMIC EFFECTS

#### POINTS OF CONTAMINATION

- Unauthorized staff with access to vulnerable process steps
- Theft & improperly sealed trailers
- Products intentionally damaged by employees

**1,069**  
**FOOD RECALLS**  
**IN 2013**



**30 MILLION** units of recalled food by the FDA

**2 MILLION** pounds of recalled food by the USDA

 **ACCESS**

Once vulnerability points are identified, allow only authorized staff access to critical control points

### HEALTH RISKS

#### PROCESS BREAKDOWNS

- Food safety policies not followed (sanitation, allergen cross contamination)
- Temperature that breaks the cold chain (most significant threat to perishable foods)
- Trailers off-route, off-schedule or cargo theft


1 in 6 consumers get sick from contaminated food each year



128,000 are hospitalized



Food borne illnesses cost the U.S. \$152 billion each year



or \$1,850 per person

 **ALERT**

Continuously monitor critical control points to alert appropriate individuals of intentional and unintentional instance of food adulteration anywhere along the chain, and respond quickly to minimize public health risks

### BRAND IMPACTS

#### COMPLIANCE AND DOCUMENTATION SHORTCOMINGS

- Procedures not followed between in-plant audits
- Monitoring equipment not maintained or malfunctioning
- Compliance documentation not maintained, difficult to access, or inaccurate

 **YOUR BRAND**

**16%** would never purchase recalled brand again

**17%** would avoid any brand by the recalled manufacturer

Social media makes it very easy to share news that could tarnish a brand



 **AUDIT**

Regularly audit procedures to determine operational and regulatory compliance to best food defense practices and provide documentation of compliance to FDA