Today’s briefing focuses on five objectives

- Defining food fraud
- Describing how it is different from food quality, food safety, and food defense
- Introducing the food fraud prevention system
- Discussing the criminology behind the system
- Illustrating how it works

Food fraud is defined as a collective term used to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product, for economic gain.

**Food fraud**

- **Action:** Deception using food for economic gain
  - Including the FDA defined sub-category of Economically Motivated Adulteration
- **Motivation:** Economic gain
- **Effect:**
  - Economic Threat
  - Public health Vulnerability or Threat

Food fraud is a collective term used to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product, for economic gain.
The food protection risk matrix

Prevent by Understanding the Motivation

<table>
<thead>
<tr>
<th>Food Security</th>
<th>Food Quality</th>
<th>Food Fraud</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Safety</td>
<td>Food Defense</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional/Intentional</td>
</tr>
</tbody>
</table>

Motivation
- Gain: Economic
- Harm: Public Health, Economic, or Terror

Action

The problem is large and growing...

- Estimate: the global food industry loses US $30 to $40 billion annually to food fraud (MSU FFI, 2014)
- A single food fraud incident can cost 2-15% of a company’s annual revenue (GMA, 2010)

Food fraud prevention system

Food fraud includes...

- Substitution
- Contaminant
- Grey Market/ Theft/ Diversion
- Counterfeiting
- Over-Runs
- Unapproved Enhancements
- Mislabling
- Tampering

FDA/FR “Economically Motivated Adulteration”

All Fraud
UK, EU, GFSI, China, ISO...

Source: Food Fraud Think Tank Presentation, GFSI, 2012, 2013, 2014

• Estimate: the global food industry loses US $30 to $40 billion annually to food fraud (MSU FFI, 2014)
• A single food fraud incident can cost 2-15% of a company’s annual revenue (GMA, 2010)
Evaluating the fraud opportunity

• Established tenets of crime prevention theory guide our thinking
  – The crime triangle identifies the basic elements that comprise any problem

• We must analyze and understand these elements in order to solve problems

While criminology attempts to explain crime causation...

Crime science focuses on opportunity

Are we disrupting the chemistry of the crime?

Detect

Deter

Prevent
Example: horsemeat in beef (EU)

Laurence McAllister
Red Lion Slaughterhouse (UK)
Willy Selten
Jan Fasen

14 companies throughout the EU
9 countries

Companies
Governments
Individuals along the supply chain
Food Standards Agency (UK)

Consumers
Governments
Companies

New problems emerge

Incidents

Counterfeit and forged horse passports were being targeted by the fraudsters

The horsemeat in beef crisis resulted in several countermeasures

- An improved horse identification system in Europe (i.e., horse passports)
- Mandatory country of origin labeling for horse meat
- Mandatory CCTV cameras inside slaughterhouses
- Restriction of the Tripartite Agreement

So...how does one obtain a fake identity document or horse passport?
Birth certificates can be used to obtain identity documents that give the holder access to various aspects of society.

So what does the food fraud prevention system tell us?

- Problems must be specifically and accurately defined
- The process must be *data-driven*
- The solution must be focused
- Assessment must be ongoing

*These principles can and should be applied to food fraud*

Questions and Comments

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www.FoodFraud.msu.edu
Food Document Fraud Survey

www.surveymonkey.com/r/FoodDocument