Food Fraud Overview

Food and Agriculture Sector Joint Quarterly Meeting (SCC/GCC)
Critical Infrastructure Partnership Advisory Council (CIPAC)
Tuesday, September 10, 2013 – 1:30 to 3:00

John Spink, PhD
Director, Food Fraud Initiative

www.FoodFraud.MSU.edu -- Twitter @FoodFraud and #FoodFraud
Curriculum

Graduate Courses (Online, Three Credits)
• Anti-Counterfeit & Product Protection (Food Fraud)
• Quantifying Food Risk (including Food Fraud)
• Food Protection and Defense (Packaging Module)
• Packaging for Food Safety

Certificate (Online, Four Courses Each)
• Certificate in Food Fraud Prevention (Food Safety)

Graduate Degree (Online)
• Master of Science in Food Safety

MOOC – Food Fraud Overview – Nov 12 & 19

Executive Education – Food Fraud – Oct 22 & 23
**Working Definition of EMA**

“The fraudulent, **intentional** substitution or addition of a substance in a product for the purpose of increasing the apparent value of the product or reducing the cost of its production, i.e., for **economic gain**. EMA includes dilution of products with increased quantities of an already-present substance (e.g., increasing inactive ingredients of a drug with a resulting reduction in strength of the finished product, or watering down of juice) to the extent that such dilution poses a known or possible health risk to consumers, as well as the addition or substitution of substances in order to mask dilution.”

-- Federal Register, April 6, 2009

**HHS reply to GAO (October 7, 2011):**

“This working definition has been used to generate dialogue between the FDA, the regulated community, and advocacy groups. It has gained traction as a practical working definition, and although it does not serve as a legal definition or require conformance or uniform acceptance, it is a functional and adaptable means of identifying situations of EMA that may concern multiple Centers, enabling them to focus their discussions and encouraging communication and collaboration.”
What is Food Fraud?

Food Fraud

- Substitution
- Contaminant
- FD&C Act Adulteration
- Grey Market/Theft/Diversion
- Tampering
- Mislabeling
- Over-Runs
- Unapproved Enhancements
- Counterfeiting
- Dilution

Source: Food Fraud Think Tank Presentation, GFSI, 10/2012
# The Food Risk Matrix

The **Cause** leading to the **Effect** of Adulteration

<table>
<thead>
<tr>
<th>Food Quality</th>
<th>Food Fraud (1)</th>
<th>Action</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Unintentional</td>
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<tr>
<th>Motivation</th>
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<tr>
<td>Gain: Economic</td>
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| Harm: Public Health, Economic, or Terror |

The Chemistry of the Crime

Detect
Deter
Prevent

Are we disrupting the Chemistry of the Crime?
Public Private Partnership and beyond

Academia

Private Sector

Law Enforcement

Prosecutors and Judicial System

Policy Makers

Interpol

Europol

GFSI
Approaches to Prevent Food Fraud

(CRIMINAL) SCIENCE

RISK ASSESSMENT

SOCIO-ECONOMIC

INSPECTION & PRODUCT TESTING

AUDIT & CERTIFICATION
A Strategic Solution to Food Fraud

• Monitoring all imported product is not practical.
• Monitoring all international food manufacturing is not practical.
• Focus on the root of the risk and actions… – *The Chemistry of the Crime*: Criminal, Victim, and Guardians/Hurdles

• Detection > Deterrence > PREVENTION
• Food Fraud IS our Food industry responsibility
• The Strategy
  – Intelligence Gathering
  – Create a Public Forum
  – Create Awareness & Harmonization
    • FSMA, GFSI, ISO, USP
    • Food, Dietary Supplements, Drug, Medical Device, Cosmetics, Tobacco, etc
Acknowledgements

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Discussion

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## MSU Engagement 2013

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<th>Outcome</th>
<th>Benefit</th>
<th>Commitment</th>
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<tbody>
<tr>
<td><strong>Graduate Course</strong></td>
<td>Share your knowledge and set direction of research</td>
<td>Develop the internal talent to support initiatives in the AC space</td>
<td>14 Weeks, online, May to August, ~$1500</td>
</tr>
<tr>
<td><strong>Executive Education</strong></td>
<td>Share your knowledge and set direction of research</td>
<td>Develop the internal talent to support initiatives in the AC space, meet other thought leaders (“invitation only” sessions for brand owners)</td>
<td>2 Days on-campus ($1950) June 19-20 <strong>Oct 22-23</strong></td>
</tr>
<tr>
<td><strong>Multi-Client Studies</strong></td>
<td>Research the why’s of AC/D, understand underlying drivers</td>
<td>Uncovering the drivers may lead to new strategies to combat Counterfeiting</td>
<td>Teleconference Meetings with option for on-campus meeting, $varies</td>
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<tr>
<td><strong>MOOC</strong></td>
<td>Engage global network of Food Fraud thinkers..</td>
<td>Two, 2-hour on-line webinar format with assessment. Students earn an MSU “credential”.</td>
<td>May 10 &amp; 17, 2013 <strong>Nov 12 &amp; 19</strong></td>
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