

Food Fraud

what it is, why it is important, why now

Food Protection Forum

Ministry for Primary Industries, NZ

Monday, October 12, 2015

Session 3 – Food Defense – 11:40 to 1:10

Auckland, New Zealand

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WWW.FoodFraud.MSU.edu Twitter @FoodFraud and #FoodFraud



Food Fraud Curriculum

Massive Open Online Course (MOOC – free, open, online)

- November 2 & 6 **Bi-Lingual English-Mandarin**, May 2016
 - Free, open, online, open to everyone, includes a 'certificate of completion'
- www.FoodFraud.msu.edu

Executive Education (Short-Course)

- Food Fraud, Quantifying Food Risk
- September 21-22/ 23-24; Feb 1-2/ 3-4, 2016

Graduate Courses (Online, Three Credits)

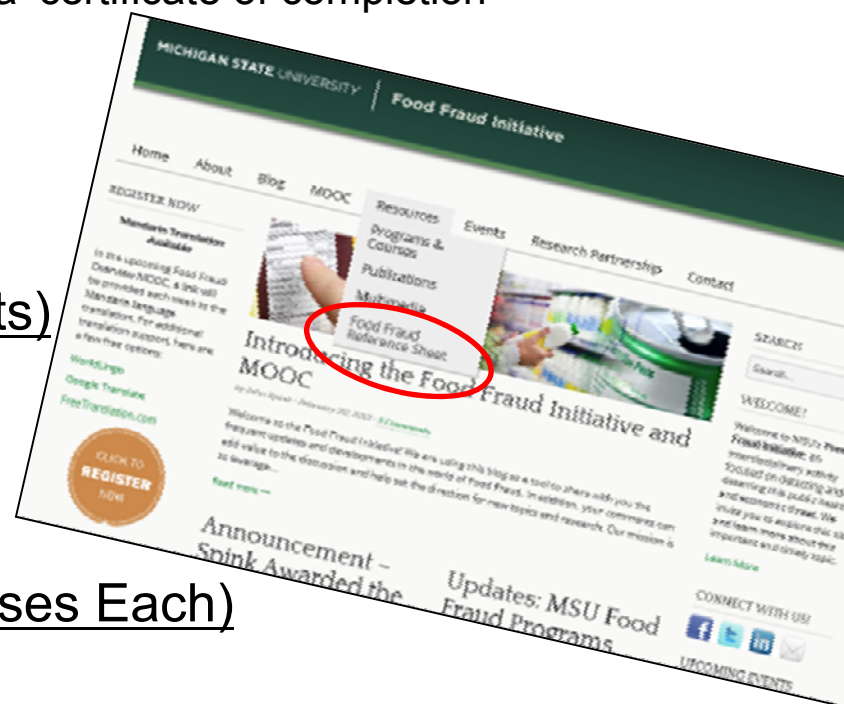
- Anti-Counterfeit & Product Protection (Food Fraud)
- Quantifying Food Risk (including Food Fraud)
- Food Protection and Defense (Packaging Module)
- Packaging for Food Safety

Graduate Certificate (Online, Four Courses Each)

- Certificate in Food Fraud Prevention (Food Safety)

Master of Science in Food Safety (Online)

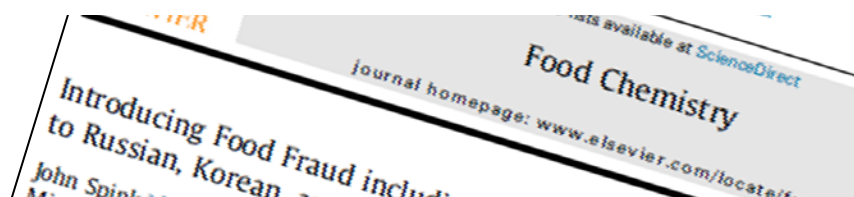
- www.online.FoodSafety.msu.edu



Introducing Food Fraud including translation and interpretation to Russian, Korean, and Chinese languages

食品欺诈介绍，翻译成俄语、韩语和中文

- Translation by local scholars and food safety experts
- 由各国食品安全专家和学者翻译
- Reference in their language (country)
- 为不同语言的国家提供参考信息
- Future translations planned
- 计划下一篇文章翻译



题目:食品欺诈概述及俄语、韩语和中文的译文

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摘要

本文引入食品欺诈概念，并附有俄语、韩语和中文的译文。该概念全面系统地阐述食品欺诈预防，其目标不是检测食品欺诈，而是调整整个食品供应链，降低食品欺诈发生的机会。作为食品保护的一部分，食品欺诈是一个近期才界定的领域，介于食品安全（例如沙门氏菌，或农药残留）和食品防御（恶意伤害，如恐怖主义）之间。食品欺诈是为获得经济收益而无恶意伤害意图的故意行为。正如加强食品安全、食品防御一样，防止

Defining Food Fraud

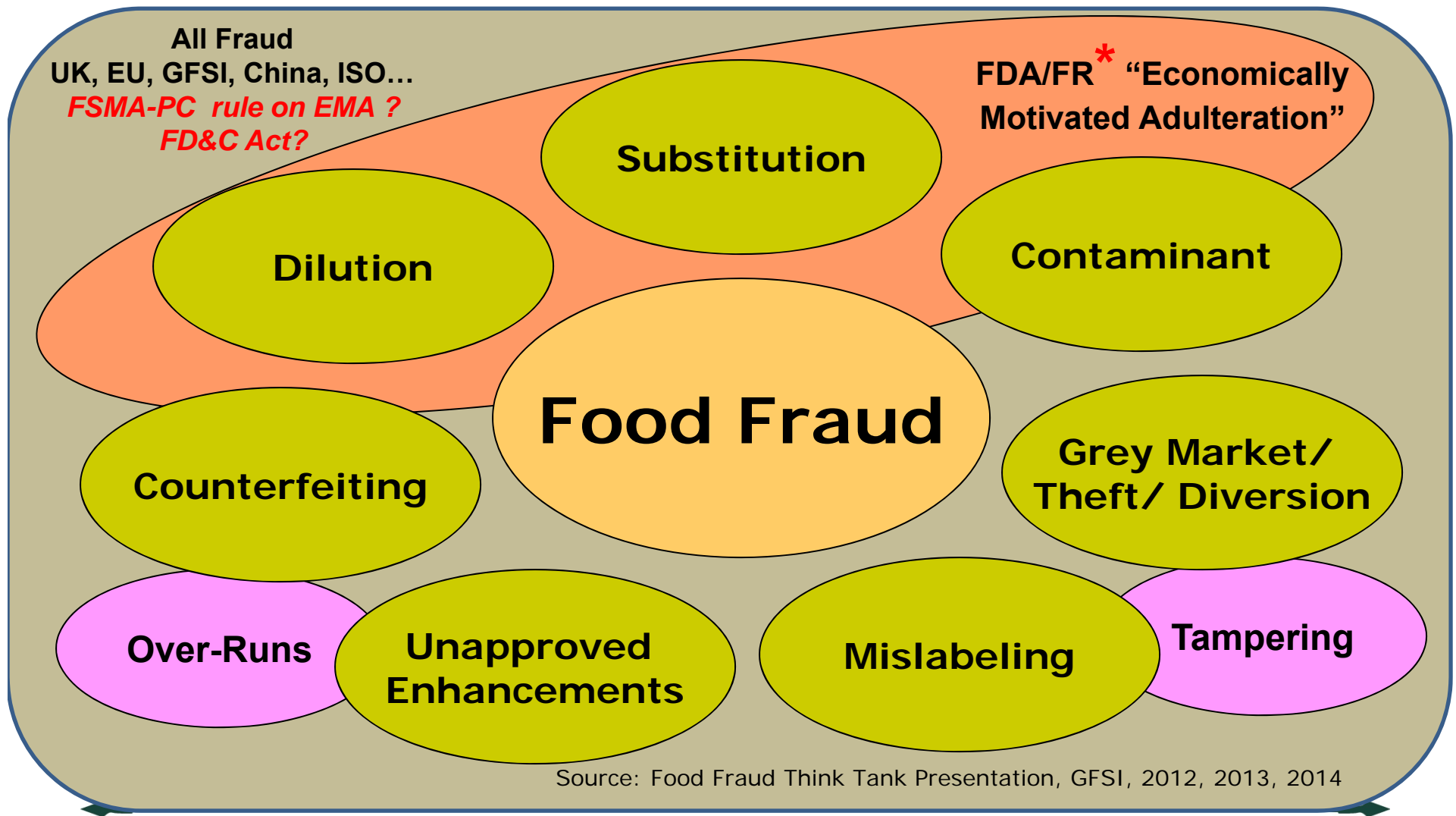
- **Action: Deception Using Food for Economic Gain**
 - Including the sub-category of “Economically Motivated Adulteration” or EMA
 - Note: FDA currently defines EMA as a “substance” for “economic gain”
 - Consistent with GFSI, EC/EU, UK, ISO, and others...
- **Motivation: Economic Gain**
 - “Food Defense” motivation is traditionally harm or terror
- **Effect:**
 - Economic **Threat** – **Consumers and Governments expect Food Agency Controls**
 - Public Health **Vulnerability or Threat**

Examples

- Horsemeat in ground beef
- Peanut Corporation selling known contaminated product
- Diluted or extra virgin olive oil
- Melamine in pet food and infant formula
- Over-icing with unsanitary water
- Unauthorized unsanitary repackaging (up-labeling or origin-laundering)
- Cargo Theft reintroduced into commerce/ Stolen products
- Expired product date code tampering or “refreshing”

Reference: Spink & Moyer (2011). Defining the Public Health Threat of Food Fraud, Journal of Food Science

What is Food Fraud?



The Food Risk Matrix

Prevent by Understanding the Motivation

Food Security	Food Quality	Food Fraud ⁽¹⁾	Motivation Gain: Economic
	Food Safety	Food Defense	Harm: Public Health, Economic, or Terror
	Unintentional	Intentional	
	Action		

Source: Adapted from: Spink (2006), The Counterfeit Food and Beverage Threat, Association of Food and Drug Officials (AFDO), Annual Meeting 2006; Spink, J. & Moyer, DC (2011) Defining the Public Health Threat of Food Fraud, Journal of Food Science, November 2011

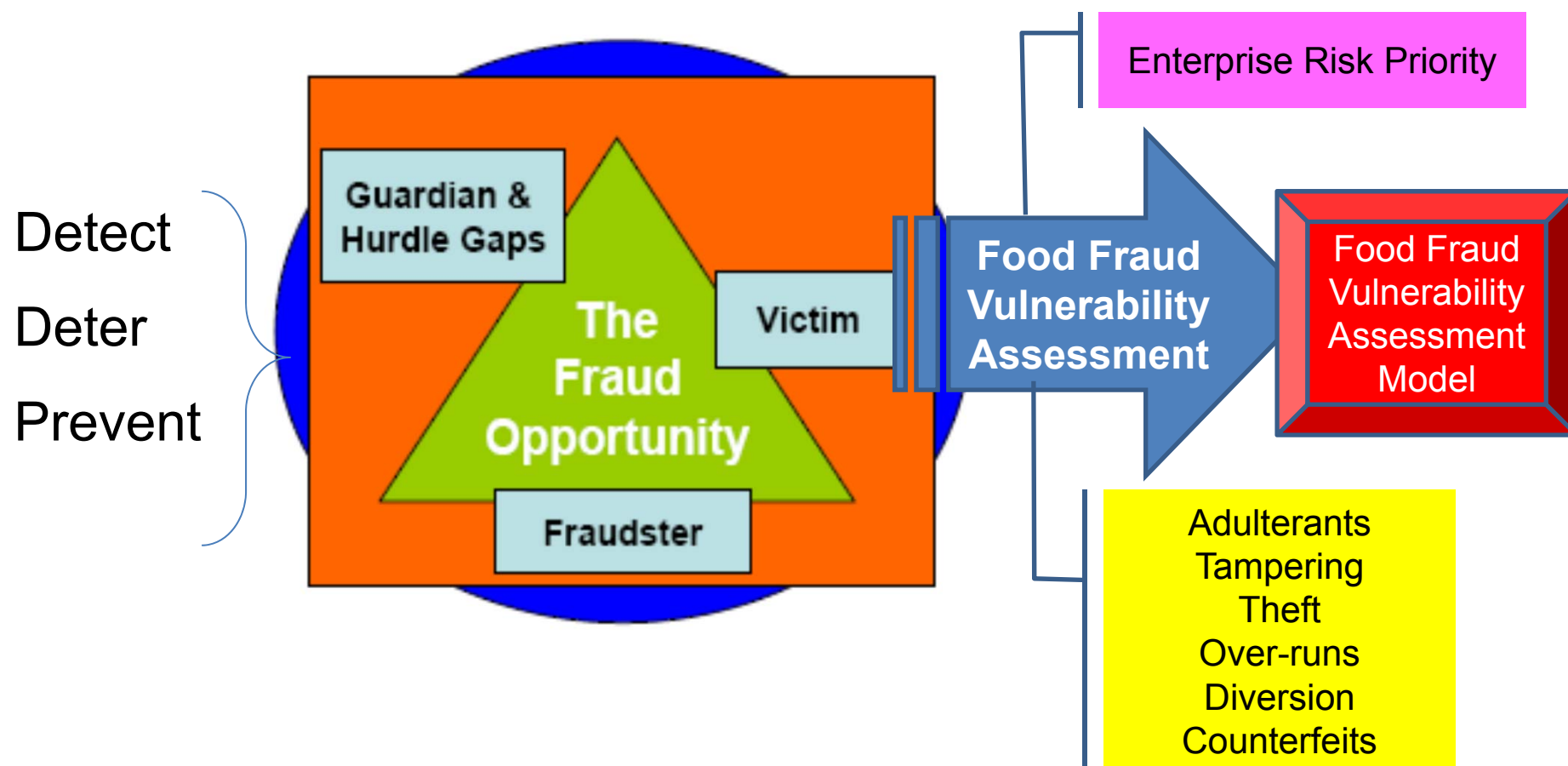
GFSI Position Integral Part of FSMS



Food Safety	Food Defence	Food Fraud
HACCP Hazards	TACCP Threats	VACCP Vulnerabilities
Prevention of unintentional / accidental adulteration •Science based •Food borne illness	Prevention of intentional adulteration •Ideologically motivated	Prevention of intentional adulteration •Economically motivated

The Chemistry of the Crime

The Vulnerability Assessment Foundation



China: Food Safety Law 中华人民共和国食品安全法 (Baltimore, USA)



www.FoodFraud.msu.edu

国家食品安全风险评估中心

Food Fraud Incident Type

- **Adulteration:** A component in finished product is fraudulent
- **Tampering:** product and packaging are used in a fraudulent way
- **Over-run:** Legitimate product is made in excess of production agreements
- **Theft:** Legitimate product is stolen and passed off as legitimately procured
- **Diversion:** The sale or distribution of legitimate products outside of intended markets
- **Simulation:** Illegitimate product is designed to look like but not exactly copy the legitimate product
- **Counterfeit:** All aspects of the fraudulent product and packaging are fully replicated

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