



# Food Fraud Prevention Priority Setting to Reduce the Overall Fraud Opportunity

## Food Fraud Network Norway

Thursday, **March 14, 2024** (Virtual)



### John W Spink, Ph.D.


Director, Food Fraud Prevention Academy

Also: Assistant Professor, Department of Supply Chain Management, Business College,  
Michigan State University (USA)

FoodFraudPrevention.com Twitter: @FoodFraud #FoodFraud



1


Food Fraud Prevention ACADEMY

## Resources: Food Fraud Prevention Think Tank

**Textbook:** Food Fraud Prevention (Spink, 2019)

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

- With a 'certificate of completion' based on **assessments**
- On-demand, ten professional training hours

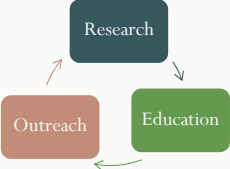


1. Food Fraud Prevention Overview MOOC
2. Food Fraud Prevention Audit Guide MOOC
3. Food Defense Threat Audit Guide MOOC
4. Food Fraud Vulnerability Assessment & Prevention Strategy (VACCP)
5. Developing an Organic Fraud Prevention Plan (with OTA)
6. Food Fraud & Enterprise Risk Management (ERM)
7. Food Fraud Supply Chain Management & Procurement
8. **Food Fraud – Advanced Criminology (for INTERPOL/ Europol)**

**Also:**

1. USDA NOP – Organic Fraud and the Criminal Mind (See USDA.gov)
2. USDA NOP – Preventing Organic Product Fraud (See USDA.gov)

**MooCLive**  
Live, interactive webinar versions of the on-demand courses:  
**Webinar B: Supply Chain Management MOOC and Audit Guide MOOC – March 18, 29, 25, & 27 (9-11 am)**

**Reports, Primer Documents, Scholarly Works, Videos and Training**

Link to Textbook:  
<http://www.amrdoezrs.net/link/s/9101220?type/dla/https://www.springer.com/us/book/9781493996193>

2
FoodFraudPrevention.com

2

Food Fraud Prevention ACADEMY

## The Goal of a Food Fraud Prevention Strategy

**The goal is not to catch food fraud but to prevent it from occurring:**  
**first, by considering all potential fraud acts and,**  
**second, by reducing overall vulnerability or system weaknesses.**

**Food fraud is an enterprise-risk.**

*A bottom-up approach - to assessment and management - often misses the strategic, black swan events that are the biggest problems.*

3 (c) 2024 Food Fraud Prevention Think Tank LLC FoodFraudPrevention.com

3

Food Fraud Prevention ACADEMY

## The Science and Sciences of Food Fraud Prevention

**The Goal**

**Business**  
 Supply Chain Management, Enterprise Risk Management, Decision Sciences

**Social Science**  
 Standards & Certification, Public Policy

**Food**  
 Intelligence Analysis, Criminology, Journalism, Food Authenticity, Food Safety

**Journalism**

Standard Operating Procedures  
 All activities focusing on prevention

4 (c) 2024 Food Fraud Prevention Think Tank LLC FoodFraudPrevention.com

4

Food Fraud Prevention ACADEMY

## Trends: Chronology

- 2004-2007: Sudan Red, Melamine
- 2013-2017: Horsemeat incident and GFSI examination
- 2018: New FFP compliance requirements (“just get started”)
- 2020: Year two, process improvement and audit maturity
- 2020: COVID = assurance of supply, etc.
- 2022: Inflation, Ukraine-Russia, etc.
- **2024: CINNAMON...**
- Future: Increased focus on Supply Chain Disruptions and related risks
  - Expanded focus on reducing uncertainty.
  - Enterprise Risk Management/ COSO into the front-line operations.
  - **Quickly adding new suppliers and sources**
  - **Quickly changing recipes**
  - ***New risks but the same vulnerabilities (Incidents from fraudsters).***
  - ***The same basic procedures apply (Root causes of vulnerabilities).***
  - ***It's time to get more formal with policies and a holistic approach.***

5
(c) 2024 Food Fraud Prevention Think Tank LLC
FoodFraudPrevention.com

5

Food Fraud Prevention ACADEMY

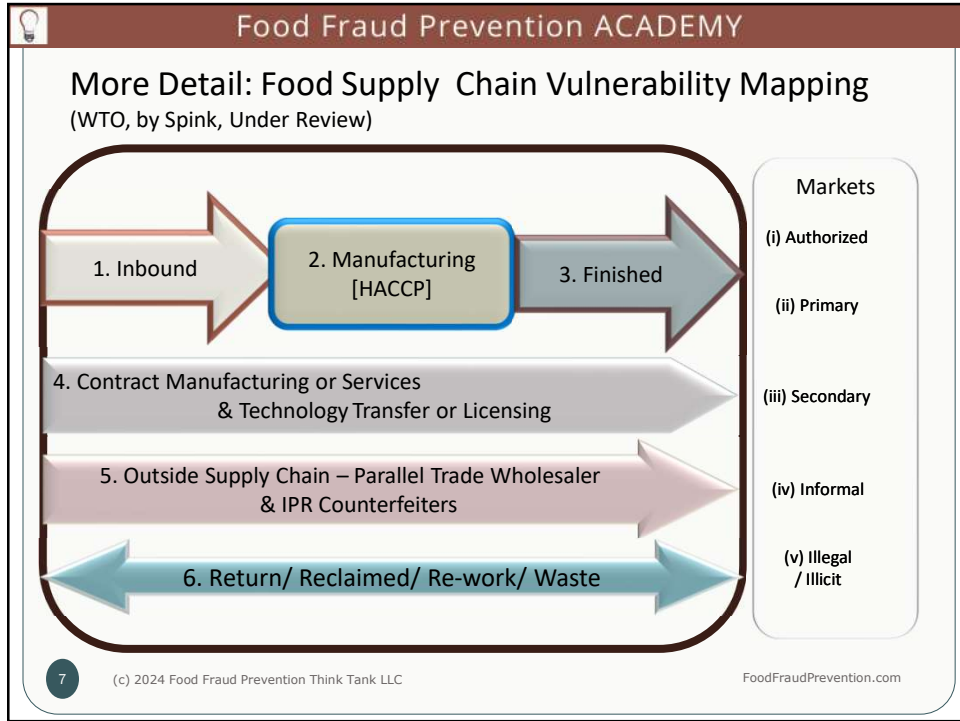
## Trends: Focus on the Supply Chains

- Different parts of the supply chain
  - Raw materials
  - Incoming goods
  - Manufacturing
  - Outgoing goods
  - Finished Goods
  - Retail Sales
- Different markets
  - Authorized/ Formal
  - Informal
  - Illegal/ Illicit Trade

- By joining these two ideas, we have a clearer focus area:
  - Genuine product in Genuine Markets
  - Illegal products slipping into Genuine Markets
  - Genuine product diverting to illegal markets
  - Illegal products in illegal markets
  - ***Illicit products in illicit markets***
    - Fraudulent Illegal products in illegal markets (counterfeit Xanax with fentanyl).

6
(c) 2024 Food Fraud Prevention Think Tank LLC
FoodFraudPrevention.com

6



7

## Food Fraud Suspicious Activity Report Method (FFSAR)

<https://bit.ly/3ThKXE3>

8 (c) 2024 Food Fraud Prevention Think Tank LLC FoodFraudPrevention.com

8

Food Fraud Prevention ACADEMY

## Overview

- Standardize the food fraud suspicious activity report method...
  - For you
  - For those who are investigating
  - For those who are reporting
- Exaggeration or catastrophizing may get public attention but can be considered deceitful when the details are reviewed.
  - “Unfit for consumption” statement that was based on the opinion that low-quality products should not be consumed.
  - It “smelled terrible” and had an “unpleasant smell” – this is not a clear violation of anything buy your own nose.
  - Claim of “illegal” when there is no label claim.
  - Claim “This must be criminal” when it is actually not a violation of a criminal statute... and often not even technically illegal.
  - *A ‘rumor’ is not necessarily a food fraud act... but it might be.*
- Create a common and standardized basic form.

9

(c) 2024 Food Fraud Prevention Think Tank LLC

FoodFraudPrevention.com

9

Food Fraud Prevention ACADEMY

## Discussion Example: Overview of the FFSAR

- Incidents (Non-incidents)
  - Aloe Vera not 100%
  - Gingko/ Echinacea w/ Low DNA
  - Dangerous Levels of Arsenic in Apple Juice
  - Chicken Misabeled that was 50% Soy
  - Wood Chips as Filler in Shredded Parmesan Cheese
  - <NEW> EU Thresholds for Anti-oxidants in Tuna

### Research Call to Action

- Developed because of an increasing number of reported false alarms
- Indicated a need for standardized investigation methods and processes.
- The target user includes: journalists, regulators, public relations professionals, criminal investigators, criminal intelligence analysts, food authorities, and other researchers.
- The FFSAR can be used for organizing information before conducting a criminal intelligence analysis or Hot Spot analysis.

10

(c) 2024 Food Fraud Prevention Think Tank LLC

FoodFraudPrevention.com

10

🔦
Food Fraud Prevention ACADEMY

## Food Fraud Incident Template

- A ‘rumor’ is not necessarily a food fraud act... but it might be.
- If you apply the wrong investigation methods, you may get an incorrect conclusion.
- This is a fill-in-the-blanks survey questionnaire.

Most people don’t have all the details! That’s the point.

**Suspicious Activity Report – Questionnaire:**

1.1. What is the concern?

1.2. What is the type of information (e.g., lab test, notice, investigation report, etc.)?

1.3. What is the source of information (e.g., internal company, industry competitor, industry stakeholders, consumer, regulator, investigator, general concern, consumer advocate, etc.)?

1.4. Date of event or incident?

1.5. What is the geographic source of samples, e.g., one store, one city, one region, one supply chain element, etc.?

1.6. What specific law or regulation has been violated? What certification or standard has been violated? Is the claim a civil violation against a commercial specification?

2. Raw materials – are any materials used by the manufacturer?

2.1. Name of product

2.2. Ingredient list

2.3. Supplier name

2.4. Health Claims (e.g., organic, non-GMO, gluten-free, etc.)

2.5. Allergens/Allergen claims

3. Supplier

3.1. Has the source been vetted and approved? By what certification or process?

3.2. Is there a history of any significant situations at the supplier that could lead to fraud?

3.3. Has the supplier’s supply chain (e.g., see 2, see 3, etc.) been reviewed (e.g., such as by another certification or source of supply chain programs)?

4. Processing – Would processing alter any of the critical raw materials where tested for the presence of any not be detectable (e.g., distillation, roasting, etc.)?

5. Formulation – Would other raw materials interfere with the critical raw materials where often tested for the presence of any not be detectable?

6. Packaging – Test sample or retail package. Could a consumer or competitor intentionally adulterate the product to make it fraudulent? Has the package been tested or analyzed for tampering or modification?

7. Authenticity Testing – Has the correct method to confirm the presence of the critical ingredients been selected and performed by a qualified laboratory? Is there an accepted method to test for the presence of the critical ingredients? Was a “reference method” followed including a randomized sampling plan?

Details next...

11

(c) 2024 Food Fraud Prevention Think Tank LLC

FoodFraudPrevention.com

11

🔦
Food Fraud Prevention ACADEMY

## New Information – Where to apply on the cycle?

- Where on the Criminal Intelligence Cycle (adapted from (UNODC and Crime 2011) – to jumpstart the “Collection” step.

```

graph TD
    Tasking --> Collection
    Collection --> Evaluation
    Evaluation --> Collation
    Collation --> Analysis
    Analysis --> Development
    Development --> Dissemination
    Dissemination --> Tasking
    
```

12

(c) 2024 Food Fraud Prevention Think Tank LLC

FoodFraudPrevention.com

12

**Food Fraud Prevention ACADEMY**

## Food Fraud Incident Template: Major Categories in the Survey

The major categories were expanded after considering what information (or lack of) led to incorrect food fraud claims.

- Food Fraud Suspicious Activity Report Method (FFSAR) Incident Assessment Questionnaire (Spink, 2022 Under Review)

1. **Suspicious Activity** - Define the details
2. **Raw materials** – are critical raw materials used in the finished product authentic?
3. **Supplier** – provide insight about the supplier and supply chain
4. **Processing** - Would processing alter any of the critical raw materials where when tested for presence of may not be detectable (e.g., denaturation, masking, etc.)
5. **Formulation** – Would other raw materials interfere with the critical raw materials where when tested for presence of may not be detectable?
6. **Tampering** – test sample or retail package: Could a consumer or competitor intentionally adulterate the product to make it fraudulent? Has the package been tested or analyzed for tampering or modification?
7. **Authenticity Testing** – Has the correct method to confirm presence of the critical ingredient been selected and performed by a qualified laboratory? Is there an accepted method to test for the presence of the critical ingredient? Was a "validated method" followed including a standardized sampling plan?

Reference: Spink, 2022 Under review

13
(c) 2024 Food Fraud Prevention Think Tank LLC
FoodFraudPrevention.com


13


**Food Fraud Prevention ACADEMY**

## Call to Action

- Review a standardized food fraud suspicious activity reporting method
- FFSAR?
- How to proceed?

<https://bit.ly/3ThKXE3>





14
(c) 2024 Food Fraud Prevention Think Tank LLC
FoodFraudPrevention.com

14

**Call to Action**

- Keep watching for new food fraud incidents
- Conduct a gap analysis/ process check of your strategy
- Use a standardized investigation survey

15 (c) 2024 Food Fraud Prevention Think Tank LLC FoodFraudPrevention.com

15

 Food Fraud Prevention ACADEMY

**Discussion**

John Spink, PhD

Twitter: [Food Fraud](#) and [#FoodFraud](#)

[www.FoodFraudPrevention.com](http://www.FoodFraudPrevention.com)

**MOOC programs: [www.FoodFraudMOOC.com](http://www.FoodFraudMOOC.com)**

16 (c) 2024 Food Fraud Prevention Think Tank LLC FoodFraudPrevention.com

16




**Food Fraud Prevention ACADEMY**

## Acknowledgements

- **MSU Supply Chain Management:** Ex-Chair Cheri Speier-Pero, Dr. Ken Boyer, Dr. John MacDonald, Ex-Chair David Closs, Dr. Stan Griffiths, Dr. Judy Whipple, Dr. Steven Melyk, Dr. Claudia Rosales, Dr. Justin Jagger, Dr. Jason Miller
- **MSU Veterinary Medicine:** Dean Christopher Brown, Chair Dan Grooms, Chair Ray Geor, Dr. Wilson Rumbelha, Cindy Wilson, Ex-Dean John Baker
- **MSU Global:** Associate Provost/ Executive Director Christine Geith, Jerry Rhead, Gwyn Shelle, Lauren Zavala, Associate Provost/ EVP Dr. Karen Klomprens, Rashad Muhammad
- **Queens's University Belfast (UK):** Professor & Director Christopher Elliott, Dr. Moira Dean, Dr. Michael Hollis
- **MSU Online Master's of Science in Food Safety:** Ex-Director Melinda Wilkins, Ex-Director Julie Funk, Kristi Denbrock, Heather Ricks, Peggy Trommater, Heidi Chen, Dr. Gary Ades, Chair Ray Geor, Ex-Chair Scott Haskell, Director Patty Weber
- **MSU Food Science:** Chair Fred Derksen, Les Bourquin, Bradley Marks, Felicia Wu, VP of Research Ian Gray, David Ortega, Gale Strasburg
- **MSU Program in Public Health:** Director Michael Rip and Douglas C Moyer
- **MSU NFSTC:** Dr. Scott Winterstein, Trent Wakenight, Dr. Kevin Walker, Sandy Enness, Jen Sysak, Dr. Rick Foster, to name a few critical contributors and supporters.
- **MSU Food Safety Policy Center:** Dr. Ewen Todd
- **MSU School of Packaging:** Dr. Bruce Harte, Dr. Robb Clarke, Dr. Laura Bix, Dr. Paul Singh, Dr. Diana Twede, Dr. Gary Burgess, Dr. Harold Hughes, Dr. Mark Gebersas, Dennis Young, and Director Joseph Hotchkiss, Director Matt Dahm
- **MSU Communication Arts/ Consumer Behavior:** Dr. Maria Lapinski and Dr. Nora Rifon
- **MSU Criminal Justice:** Dr. Jeremy Wilson, Director Ed McGarrell, Dr. Justin Heinonen, Roy Fenoff, Zoltan Fejas, Barbara Sayre, and Sara Heeg
- **MSU College Social Science:** Dean Marietta Baba and Assoc Dean Chris Maxwell
- **MSU College of Law:** Dr. Neil Fortin and Dr. Peter Yu
- **MSU Libraries:** Anita Ezzo, Nancy Lucas, Kara Gust
- **MSU International Programs:** Dr. Mary Anne Walker, Dr. John Whimms
- **State of Michigan's Ag & Food Protection Strategy Steering Committee:** Dr. John Tilden, Brad Deacon, Gerald Wojtala, Byron Beerbower
- **The Citadel:** Dr. Roy Fenoff

17

(c) 2024 Food Fraud Prevention Think Tank LLC

FoodFraudPrevention.com