



# Top Tips to Mitigate **Food Fraud**

# Today's Speakers

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# Today's Discussion Agenda

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- Food Fraud Background
- Food Fraud Requirements
- Food Fraud Implementation Best Practices
- Available Resources
- Q&A

# USP and Food Fraud Background



# USP MISSION

To improve global health through public standards and related programs that help ensure the quality, safety, and benefit of medicines and foods.



# Who We Are and Where We Work

- ▶ Founded in 1820, nonprofit, private, independent and self-funded
- ▶ Focused on quality standards to protect the public's health
- ▶ More than 1,000 employees worldwide

- ▶ Headquarters in Rockville, MD near Washington, DC, NIH and FDA
- ▶ Laboratory facilities in U.S., India, China, Brazil and Ghana
- ▶ Offices in Switzerland, Ethiopia, Indonesia, the Philippines and Nigeria

- ▶ Work with more than 900 volunteers from industry, academia and government to develop standards that help protect public health
- ▶ Internationally recognized and globally focused



# What We Do

We develop public, scientific quality standards that help protect people's health

## PHARMACEUTICALS

Nearly 200 years of ensuring trust and confidence among patients and providers



## FOOD INGREDIENTS

Globalization means food supplies today face greater risks



## HEALTHCARE QUALITY

Ongoing transformation in health delivery reveals additional needs for standards setting



## DIETARY SUPPLEMENTS & HERBAL MEDICINES

Explosive industry growth demands a focus on quality to ensure consumer confidence and safety



## GLOBAL PUBLIC HEALTH

Combating substandard and counterfeit medicines in under-resourced countries around the globe



# What is Food Fraud

The intentional misrepresentation of the true identity or contents of a food ingredient or product for economic gain



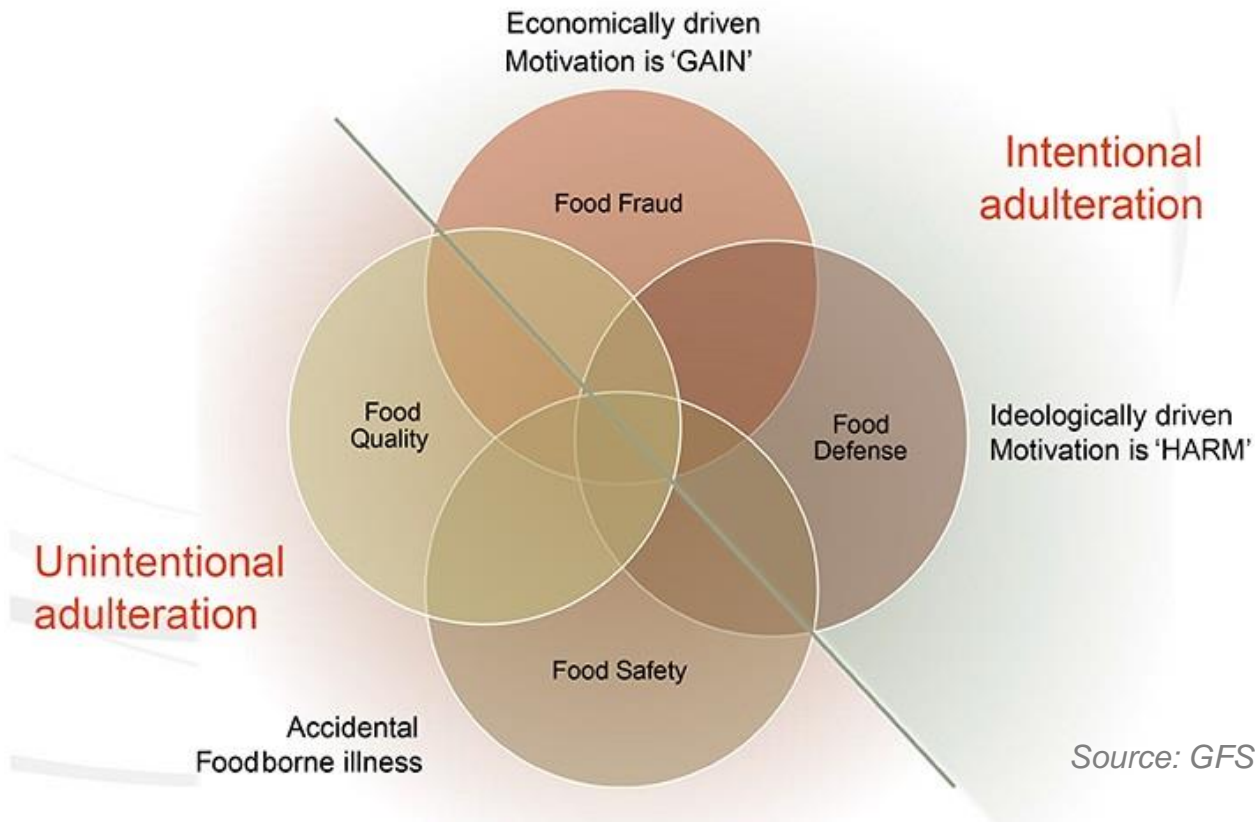
**Authentic**



**Adulterated**  
25% Papaya Seeds



# Intentional vs Unintentional Adulteration



# What is food fraud (and EMA)?



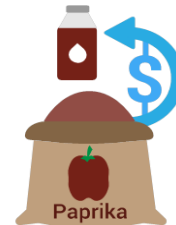
Dilution or  
Substitution



Artificial  
enhancement



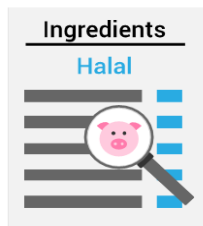
Use of undeclared,  
unapproved, or  
banned biocides



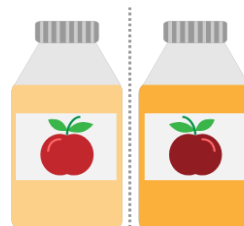
Removal of  
authentic  
constituents



Misrepresentation  
of nutritional value



Fraudulent  
labeling claims



Formulation of a  
fraudulent product



Counterfeits, theft  
overruns  
gray markets

# Food Fraud – Prevalence and Impact



UP TO **10%** FOOD SUPPLY IS AFFECTED

## PREVALENCE

## IMPACT



**Public Health**  
(In some cases)



**Economic**



**Compliance**



**Brand Damage**



**Consumer Confidence**



## WHO IS AFFECTED

### MELAMINE CRISIS

✝ **6 Children**  
**7,000 Pets**

**300,000 Children**

### AVERAGE COST

**1 Incident = 2-15%**

**Annual Business Revenue Loss**



**Food Industry**



**Government**



**Consumer**

# Food Fraud Requirements



# Raise Your Food Fraud Awareness!

- Download the **USP Food Fraud Mitigation Guidance** for free at <http://www.usp.org/food/food-fraud-mitigation-guidance>
- Read articles and blogs about Food Fraud like <http://blog.alchemysystems.com/food-fraud-3-keys-to-protection>
- Attend webinars offered to learn more
- Alchemy solutions help you properly train, coach, and reinforce food fraud with your frontline
- Professional Services team can help provide additional support to set up food fraud prevention programs
- Determine steps you need to take to comprehensively address Food Fraud to protect your brands



# Food Fraud Requirements - Regulatory

- **FSMA Preventive Control for Human Food** requirement in 21 CFR Part 117.130 Hazard Analysis Section
- The **Hazard Analysis** must identify all Economically Motivated Adulterants (EMA) that could be intentionally introduced that could impact food safety
- All **Raw Material Hazards** identified must be assessed for risk and severity
- The **Hazard Analysis** must identify controls for identified risks



# Food Fraud Requirements - GFSI

- **BRC Global Standard for Food Safety** current requirement in Sections 5.4 and 3.5.1.1 for food safety and economic adulterants
- **GFSI Benchmarking Requirements** V7 requires food fraud to be addressed in GFSI standards
- **SQF Edition 8 Food Safety Code for Manufacturing** in Section 2.7.2 for food safety effective 1/2/18
- **SQF Edition 8 Food Quality Code** in Section 2.7 for quality economic adulterants effective 1/2/18
- **FSSC 22000** Version 4 Section 2.1.4.6 effective 1/2/18 for food safety and economic adulterants

**NEW**

# General GFSI Standard Requirements

## Vulnerability Assessment for all raw materials

- Raw Material Screening
- Identification of high risk potentially hazardous adulterants
- Prioritization of vulnerabilities

## Food Fraud Mitigation Plan

- Documented Program to prevent or control identified risks
- Considerations include geographical sourcing, audit requirements, Supplier Approval procedures, testing requirements and other verification methods
- Annual Program Review



# Food Fraud Implementation Best Practices



# Best Practices for Food Fraud Program Implementation



## 1. Complete your Raw Material Vulnerability Assessment

- Complete screening with historical data
- Categorize ingredients by risk levels
- USP Food Fraud Database recommended

## 2. Document your Food Fraud Mitigation Plan

- Define your Supplier Approval methods and verification control methods to reduce vulnerabilities

## 3. Determine your Food Fraud Program Sustainment methods

- Assure your program is continually up to date as new raw materials and suppliers are added
- Complete annual program reviews required

# USP Food Fraud Mitigation Guidance

## Four Steps for Best Practices Approach:

1. Contributing Factors Assessment
2. Potential Impacts Assessments
3. Overall Vulnerability Characterizations
4. Mitigation Strategies Development

## Download free at:

<http://www.usp.org/food/food-fraud-mitigation-guidance>



# General Strategies for Reducing Food Fraud Vulnerabilities

- **Understand your supply chain** – Know your suppliers, where the raw materials are sourced and supplier control measures utilized
- **Know your suppliers and track their performance history** – Review suppliers third party audit results, product specifications, COA accuracy and non-conformance history
- **Develop a road map of necessary verification processes** – Determine by each Supplier and Raw Material which methods should apply such as acceptable locations, audits, COA requirements, independent testing or other methods

# Food Fraud Training

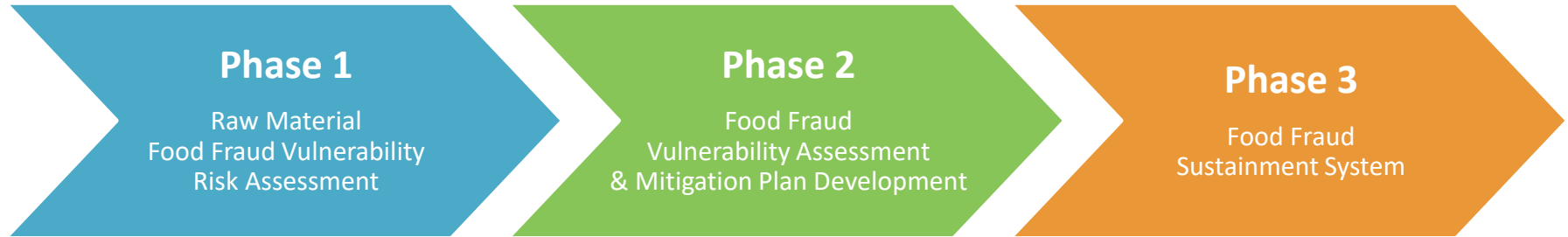
- Consider formal food fraud training for your Food Safety Team
- Train key personnel such as Receiving and Mixer Operators to be aware of food fraud and diligent in inspections
- Know your Product Specification and COA requirements
- Provide general awareness training for all employees



# Resources



# Alchemy Food Fraud Risk Assessment & Mitigation Solutions



- Food Fraud Database Subscription
- Raw Material Vulnerability Risk Assessment for EMA Hazards
- Food Fraud Mitigation Strategy Recommendations
- Project Summary Report

- Written Food Fraud Vulnerability Assessment and Mitigation Plan
- Risk Mitigation Implementation Strategy
- Project Summary Report

- Quarterly Off Site Review to discuss changes in raw materials to keep the Raw Material Hazard Analysis current
- On call availability for new product development and commercialization needs
- Annual on-site audit to reassess and validate Food Fraud Plan
- Food Fraud Database Subscription Renewals

# Alchemy's Training, Coaching & Reinforcement Programs

Educate your workforce to help prevent food fraud

- Access hundreds of multi-lingual courses on critical food industry topics, including a course on food fraud awareness
- Reinforce training with coordinated huddle guides, digital signage, and posters
- Promote GMPs and procedure compliance with an award-winning coaching app
- Ensure accurate recordkeeping with automated documentation and audit-ready reporting





# USP Food Fraud Database

- Most comprehensive resource available acknowledged by the FDA
- Access on the Alchemy Academy Site at <https://academy.alchemysystems.com/product/usp-food-fraud-database/>
- Offer for a 1 week free trial
- Get 2 months free when purchased from the Alchemy Academy Site
- Initial and continual use for new raw materials and product development

The screenshot displays the USP Food Fraud Database interface. At the top, the USP logo (U.S. Pharmacopeial Convention) is visible. Below it, the text 'INTRODUCING FOOD FRAUD DATABASE' is prominently displayed. The interface includes a navigation bar with 'USP FFD Announcements' and 'What's new with FFD'. A large promotional banner reads 'Buy 12 Months Get 2 Months FREE'. To the right, a section titled 'New USP FFD Records' shows 'NUMBER OF NEW ADULTERATION RECORDS: 302' and 'NUMBER OF NEW ADULTERATIONS: 43'. A pie chart titled 'Geographic Distribution of New Incidents' is also present.

# Food Fraud Database v2.0

USP Food Fraud Database

Welcome, Pieter  
YOUR ACCOUNT

Help FAQ USP.org Contact Us

Dashboard Search Records Data Analytics Reports Management

### FFD USP News of Interest

Welcome to USP's Food Fraud Database v2.0! You now have access to the most powerful and comprehensive collection of historical information on food fraud. The database includes thousands of ingredients and related records compiled from scientific literature, media publications, regulatory reports, judicial records and trade associations from around the world.

**GETTING STARTED**

There are 5 tabs in the database: Dashboard, Search, Data Analytics, Reports, and Management. Take a look around to see some of the features in each tab. After that, we suggest building your first Ingredient Group in the Management tab. You can either modify one of USP's "System Ingredient Groups" or create your own from... [Read More](#)

**TOTAL NUMBER OF RECORDS | 5,275**

### What's new with FFD

#### New USP FFD Records

Week Month **Quarter** Year Last Login

Number of new adulteration records	<b>1,233</b>		
Inference	436	Method	542
Incident	166	Surveillance	89

#### Geographic Distribution of New Incidents

#### What's New with My Saved Searches

##### Q What's New with My Saved Searches (Manage Searches)

Week Month **Quarter** Year Last Login

SEARCH NAME	TYPE	NEW	NEW	NEW
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##### Q New Adulterants by Ingredients in My Saved Searches

Week Month **Quarter** Year Last Login

Indicates potentially hazardous adulterant

INGREDIENT	ADULTERANT
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- Four record types
- User-friendly online interface
- Powerful search capabilities
- Dashboard feature with alerts
- Automated Analytics
- EMA hazard identification report generator
- Real-time updates

# Q & A



# THANK YOU

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