

# **ADVANCED FOOD INTEGRITY** **DEFENSE & TRACEABILITY** **PROGRAM**



## ADVANCED 1-ON-1 INSTRUCTOR-LED PROFESSIONAL PROGRAM

**Format:** 4-6 live sessions + assignments + vulnerability assessment project

**Audience:** QA managers, FSMS coordinators, compliance officers, consultants, export/import managers, procurement managers, auditors

**Outcome:** Student can design, implement, and maintain a complete program compliant with global regulations and certification schemes.

**Supports compliance with:**

EU EU Food Fraud Guidelines, RASFF, EU 178/2002

GB UK FSA food defense & authenticity rules

US FDA FSMA Intentional Adulteration Rule (IAR), Economically Motivated Adulteration (EMA)

CA CFIA Food Fraud Prevention Guidelines

AU FSANZ Food Defense & Traceability Standards

**Aligned with:**

✓ FSSC 22000

✓ BRCGS

✓ IFS

✓ SQF

### MODULE 1: GLOBAL FOUNDATIONS - UNDERSTANDING FOOD FRAUD, FOOD DEFENSE & TRACEABILITY

#### 1.1 Definitions & Industry Concepts

- Food fraud vs food defense vs food security
- EMA (Economically Motivated Adulteration)
- Intentional Contamination / IA
- Food authenticity categories

#### 1.2 Global Regulatory Frameworks

- EU: RASFF, authenticity laws, honey & olive oil directives
- UK National Food Crime Unit guidance
- USA: FSMA Intentional Adulteration Rule (IAR)
- Canada CFIA authenticity & traceability rules
- Australia/NZ tampering & defense requirements

### **1.3 GFSI Requirements (BRCGS, IFS, SQF, FSSC)**

- Food Fraud Vulnerability Assessment
- Food Defense Plan

## **MODULE 2: FOOD FRAUD (VACCP) – RISK-BASED PRODUCT INTEGRITY PROTECTION**

### **2.1 Understanding Food Fraud Risks**

- Vulnerability vs threat
- Adulteration, mislabeling, dilution, substitution, counterfeiting

### **2.2 Data Sources & Intelligence Gathering**

- RASFF, HorizonScan
- EU Food Fraud Network
- Industry alerts, scientific reports

### **2.3 Conducting a Food Fraud Vulnerability Assessment**

- Supply chain risk mapping
- Raw materials vulnerability scoring
- Fraud opportunity indicators

### **2.4 Mitigation Strategies**

- Supplier controls
- CoA verification
- Authenticity assurance programs
- Segregation and identity preservation systems

## **MODULE 3: Food Defense (TACCP) & Intentional Adulteration Prevention**

### **3.1 Understanding Food Defense & Threat Analysis**

- Insider threats
- External attackers
- Sabotage, terrorism, tampering
- FDA FSMA IA Rule requirements

- FSMA IA monitoring, corrective actions & verification basics
- Reanalysis triggers for Food Defense Plan (minimum every 3 years)

### **3.2 Conducting a TACCP Assessment**

- Vulnerability identification
- Process step threat mapping

### **3.3 Mitigation Strategies for Food Defense**

- Access controls
- Tamper-evident systems
- Security zoning

### **3.4 Developing the Food Defense Plan**

- Actionable process steps
- Mitigation strategies
- Monitoring & documentation

## **MODULE 4: ADVANCED TRACEABILITY, PRODUCT AUTHENTICITY & SUPPLY CHAIN CONTROL**

### **4.1 Regulatory Expectations for Traceability**

- EU traceability laws
- UK traceability
- FDA violations & FSMA traceability rule (FSMA 204)
- Critical Tracking Events (CTE) & Key Data Elements (KDE)
- Canada traceability under SFCR
- FSANZ traceability & recall obligations

### **4.2 Traceability Levels**

- One step forward, one step back
- Full-chain traceability

### **4.3 Supply Chain Controls**

- Supplier approval
- Fraud & defense in logistics
- Mass balance



#### **4.4 Recall & Incident Management**

- Recall simulations
- Crisis communication
- Mock trace exercises

### **MODULE 5: BLOCKCHAIN CONCEPTS FOR AUTHENTICITY & TRACEABILITY**

#### **5.1 What Blockchain Can Solve (and What It Cannot)**

- Immutable records
- Transparency
- Limitations & realistic applications

#### **5.2 Blockchain in Food Supply Chains**

- Lot-level traceability
- Authenticity verification
- Smart contracts

#### **5.3 Blockchain Integration Scenarios**

- Supplier portals
- Certification validation
- Consumer-facing transparency

### **MODULE 6: INTEGRATION - BUILDING A UNIFIED PROGRAM (VACCP + TACCP + TRACEABILITY)**

#### **6.1 FSMS Integration**

- Linking fraud, defense, and traceability
- Document hierarchy

#### **6.2 Monitoring & Verification**

- Internal audits
- Supplier audits
- Vulnerability updates

#### **6.3 Change Management & Continual Improvement**

- Updating assessments



- New hazards & intelligence
- Annual system review

### **FINAL PROJECT (1-on-1 Instructor Evaluation)**

Student prepares a full **VACCP Assessment**, **TACCP Assessment**, and **Traceability Challenge**, followed by a **live review session** and recommendations.