Food Protection and Defense Institute

Updates in Education and IT for AFDO 2017
FPDI Product Lines

**RESEARCH**
Research organized and led by internal and external PIs according to themes

*Exploratory, Basic, and Applied Research by Themes*

- Agent Detection
- Supply Chains
- Modeling
- Risk Analysis
- Information Sharing

**EDUCATION**
Education and training for students & professionals both domestic and international

*Credit and Non-Credit Offerings Delivered Through*

- Classrooms
- Online Courses
- Seminars
- Collaborative Exchanges

**INFORMATION TECHNOLOGY**
IT development to transition research to end-users and maintain CoreSHIELD operations

- FoodSHIELD
- Laboratory Portals
- EMA Database
- Risk Assessments
- Supply Chain Documentation
- Horizon Scanning

**SERVICE DELIVERY**
Delivery of service to advance the profession through leadership and service projects

- Exercises
- Consultation
- Preparedness
- Thought Leadership

**SUPPORT SERVICES**
HR, Finance, Admin, Communication, Marketing

foodprotection.umn.edu
Food Defense Readiness Assessment 2.0

EMA Preventive Controls | IA Mitigation Strategies | Management & Operations | Industry & Government Coordination
Food Defense Readiness Assessment

Facility educational tool
- Interactive survey
- Readiness report
- Suggested next steps

https://foodprotection.umn.edu/fdra
Food Adulteration Incidents Registry

Interactive dashboard:
- Food product & category
- Location
- Date
- Incident, Motivation & Adulteration type

https://foodprotection.umn.edu/fair
Food Adulteration Incidents Registry (FAIR)

Searchable incidents:
- Economically Motivated Adulteration
- Terrorism
- Sabotage

https://foodprotection.umn.edu/fair

Department of Homeland Security (DHS)
Science & Technology Directorate (S&T)
World Factbook of Food

Processing and Supply Chain Characteristics

Seasonality Profile
Almond trees do best in environments with mild, wet winters and hot, dry summers. In the United States, almonds are in season August-November, but can be found in supermarkets year-round. The vast majority of the almonds in the United States are grown in California, but they are also found in warmer, temperate climates in Europe and the Middle East.

Supply Chain Characteristics

Typical Packaging
Almonds are typically sealed in plastic bags or tin cans for easy snacking.

Sources

Curated Data:
- Production & Trade
- Food uses
- Seasonality
- Processing
- Supply chain structure
- Food safety concerns

https://foodprotection.umn.edu/world-factbook-food
Intentional Adulteration Assessment Tool (IAAT)

The Intentional Adulteration Assessment Tool is an application designed to aid food production facilities in an assessment of their processes to intentional contamination by a potential internal or external aggressor. Agents evaluated include acute toxic chemicals, biological toxins, and microbes.

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Desk-top risk analysis tool:
- Building process flows
- Vulnerability assessments
- Chemical & Biological threats

https://foodprotection.umn.edu/iaat

DHS S&T Chemical Security and Analysis Center (CSAC) and Archer Daniels Midland (ADM)
Frame

Comprehensive training framework
- Positions, Roles & Training
- Courses, Experience & Certifications

https://foodprotection.umn.edu/frame

DHS FAV-D division
USDA collaboration UMN OneHealth
FoodSHIELD

Utilization

32,000 + Profiles
3,900 + Active user accounts
245 new users per month
Average in 2016

maintaining active FoodSHIELD accounts
FoodSHIELD

FDA sponsored projects

*Current Efforts*

- State Task Force Websites
- Rapid Response Team
  Capability Assessment Tool (RRT CAT)
- Retail Risk Factor Studies
- Resource Library
- Multilingual
- After Action Exchange (AAX)
- Data Exchange (APIs) & Integrations
- FoodSHIELD Mobile

*CORE updates*

- Task Manager
- Event Manager
- Training Manager
- Alerts Manager
- DataTools

*Future projects*

- Document Control
- Shopper card
Additional Projects and Initiatives

Data Science & Big Data
- Data Lake
- Predictive Analytics
- Spatial Analytics

Supply Chains
- Risk Assessment

Agent Detection
Process Modeling

Agent Detection
IAAT

FIDES
CRISTAL
FPDI Education Initiatives

Professional Development & Training
• Executive Education and Professional Training
• Food Industry Training
• Customized Programs
• Food Defense Awareness Certificate

Food Defense Table Top Exercises

https://foodprotection.umn.edu/education
Thank you

Questions?