



# Food Supply Chain Risk Assessment and Mitigation Tools (20180173)

Technology #20180173-20180174-20180175-20180176-20180177-20180178

## Facilitates and coordinates food adulteration emergency response

A software portfolio for assessing and mitigating food supply chain risk ensuring we have a reliable source of food.

- **Criticality Spatial Analysis (CRISTAL)** online/mobile software technology enables private food companies to document supply chain components, identify specific points and facilities that are at risk of failure, proactively identify and mitigate risks and identify priorities for allocation of resources to mitigate risks in advance.
- **Focused Integration of Data for Early Signals (FIDES)** is a secure, role-based collaboration technology solutions that allow for the dissemination of information among food and agriculture stakeholders. Due to the complexity and interrelated nature of the global food system, data from a multitude of sources including trade, economics, meteorology, production, and regulations are included.
- **Food Adulteration Incidence Registry (FAIR)** supports food defense efforts by collecting and reporting adulteration incidents to help identify vulnerabilities. The user-friendly dashboard includes a variety of search capabilities, incident summaries, interactive graphs, maps and references.
- **Food Assessment Readiness Measure (FARM)** assesses a state's ability to respond to food disasters and measures its progress on preparedness over time. The FARM Toolkit is a measurement tool that aims to strengthen food emergency preparedness.

## Earlier warnings, less expensive alternative to food recalls

FDA mandatory food recall alerts come far too late, after the majority of sickness has already occurred and the majority of processing, packaging and shipment has already taken place. The delayed issuance of FDA warnings can be very expensive for companies. These software based tools will help companies and governments identify and mitigate food supply chain risks.

## Phase of Development

- Prototype.

## Benefits

- Supports food emergency preparedness
- Reveals vulnerabilities in supply chains
- Provides earlier warnings which are far less expensive than food recalls

## Features

## Technology ID

20180173

## Category

Software & IT/Algorithms  
Agriculture & Veterinary/Ag IT  
Agriculture & Veterinary/Food  
Science & Nutrition

## Learn more



- Software/mobile applications
- Actionable, tailored food disruption alerts based on ingredients and supply chain
- Documents, visualizes and compares supply chains
- Data fusion, analytics and dissemination of information within and across organizations
- Risk management assessments; calculates food emergency preparedness risk scores
- Compiles global historical and current events involving economically motivated and intentional adulteration of food

## **Applications**

- Food supply chain resiliency
- Food recalls
- Food contamination (natural, accidental or intentional)
- Disaster response and recovery

## **Desired Partnerships**

This technology is now available for:

- License
- Sponsored research
- Co-development

Please contact us to share your business' needs and learn more.

**Researchers:** Jennifer van de Ligt, PhD Associate Director, Food Protection and Defense Institute  
Penny Norquist, MPA Program Manager, Food Protection and Defense Institute  
Food Protection and Defense Institute