

VULNERABILITY ASSESSMENT AND CRITICAL CONTROL POINTS FOR FOOD FRAUD



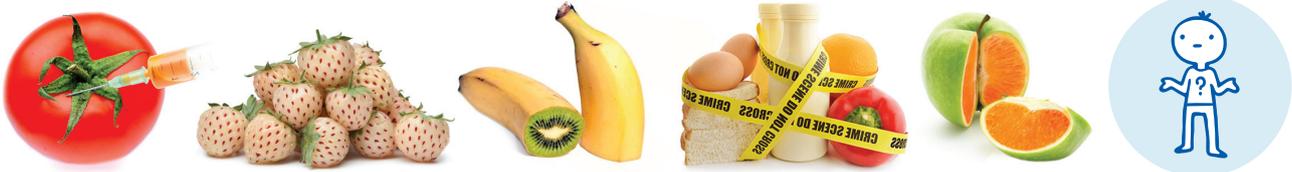
Food fraud is deliberate or intentional tampering with food products by means of adulteration, substitution or misrepresentation of the food products for economic gain. It is a growing issue and is becoming of increasing concern, as it has the potential for detrimental economic, brand and food-safety consequences to the food industry. As a result, in recent years VACCP (vulnerability assessment and critical control points) and TACCP (threat assessment

and critical control points) -based risk assessments of food ingredients have become GFSI requirements (FSSC 22000 and BRC Standards), in addition to HACCP (hazard analysis critical control points).

Knowing how to interpret what the various standards require, and what to expect when audited against these new standards, is an issue the food industry is currently coming to grips with.

WHAT ANTI-FOOD-FRAUD OR VULNERABILITY ASSESSMENT SERVICE DOES FACTS AND NSF OFFER THE SOUTH AFRICAN FOOD SUPPLY CHAIN?

- 1 Assistance with identifying the roles and responsibilities of the key players in a VACCP team
- 2 The key players identified will be trained by FACTS, using the following programme:
 - Background to food fraud and vulnerabilities in the food industry (case studies)
 - Creating the VACCP team
 - VACCP vs TACCP
 - VACCP standards (BRC and/or FSSC)
 - Discussion on how VACCP is included in your current food safety system
 - Practical exercise: NSF Model and criteria
 - Vulnerabilities management tool (Excel spreadsheet)
 - Resources and references
 - Incidents vs inferences
 - Analytical methods and current testing schedule
 - Raw material vulnerability
 - Supplier vulnerability
 - Control sheet
 - Practical exercise: Management strategies for vulnerabilities
- 3 A VACCP tool template will be created that is tailor-made for the specific facility's needs
- 4 The VACCP tool template will be populated with:
 - Incidents and inferences related to the raw materials used in the supply chain being assessed
 - The analysis used to identify the incidents
 - The corruption index for the supplier assessment
 - Examples of how to use the NSF Model in a practical way
 - A control sheet of corrective actions to be taken according to the findings of the tool.
- 5 Quarterly updates of the incidents and inferences related to the raw materials will be provided.
- 6 Testing schedules will be created and updated appropriately.
- 7 Annual assessment of the VACCP system and recommendation of improvement strategies for the upcoming year.
- 8 Horizon scanning for future issues emerging in the relevant sector of the food industry.



1 WHAT IS THE NSF FOOD FRAUD MODEL?

NSF International were commissioned by the FSA to develop a diagnostic model to identify and risk-rate the commercial opportunity for fraud across product categories, thereby providing business with an evidence and risk-based management tool.

Drawing from the two key fraud databases, the model has been designed to work from dynamic database feeds that allow the user to feed in relevant data in order to plot a relative risk score for a point in time, based on the product or ingredient type, the nature of the potential fraud, and its difficulty, profit incentive and likelihood of detection.

2 WHAT IS A FOOD INCIDENT?

An incident is a documented occurrence of food fraud in a food ingredient or product within a defined timeframe. Incidents are often reported in the media and tend to include contextual and supporting information about the perpetrator, motive, geographic location, and / or other characteristics.

There are reliable databases that allow one to search for reported food-fraud cases by simply entering the food ingredients of interest. This can help food businesses to understand the history and vulnerability of such ingredients.

3 WHY IS INCIDENT SCANNING IMPORTANT?

- Useful for checking your supplier's food authenticity
- Keeps you up to date on food-safety incidents
- You can use this information to prevent such incidents in your manufacturing facility
- Protection of brand integrity
- Consumer safety
- Compliance with GFSI audit requirements

4 WHAT IS THE CORRUPTION PERCEPTIONS INDEX?

The corruption perceptions index ranks 180 countries on a scale of 0 to 100, where 100 indicates the lowest level of corruption and 0 indicates the highest level of corruption. The corruption index thus assists procurement offices in assessing their suppliers.

5 HOW DOES ONE APPROACH ANALYSIS AS A TOOL FOR MANAGING VULNERABILITIES?

Analytical investigation is one of the methods for managing identified vulnerabilities of raw materials (including packaging) procured for the manufacture of food products. The challenge with selecting appropriate analysis is that often, standard methods that might be used to identify adulterants are unavailable. Additionally, the adulterants themselves are often a moving target, requiring constant vigilance. It becomes necessary to develop an analytical approach that can make use of the full spectrum of techniques available to detect a possible adulterant (recognised by identifying known and possible adulterants). Detection may require more than one method to be used to investigate the sample, but recent advances in molecular biology and analytical chemistry have usefully expanded the available toolkit.

6 HOW DOES ONE CREATE A TESTING SCHEDULE FOR THE VACCP SYSTEM?

Traditional testing schedules that have been developed for HACCP or food-safety requirements should now extend to VACCP or vulnerability requirements. In some cases, analysis for HACCP will also serve as a VACCP analysis; but with the current global increase in food adulteration, a fresh approach is required when compiling testing schedules in order to manage vulnerabilities in a food-manufacturing facility.