食品欺诈及脆弱性评估

LRQA China
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目录

- 食品的欺诈定义、分类、示例及管理意义
- 食品欺诈及脆弱性相关标准要求
- 食品欺诈管理过程、脆弱性评估方法和工具
- 有用资源

定义

食品欺诈 Food Fraud-以经济利益为目的，通过增加产品的表观价值或降低其生产成本对产品或原材料进行欺诈性或蓄意替换、稀释或掺假，或者对产品或原材料进行误传 （BRC Food Issue 7)

Food Fraud Prevention: The process to prevent food and feed supply chains from all forms of economically motivated, intentional adulteration that might impact consumer health. ------FSSC22000 V4

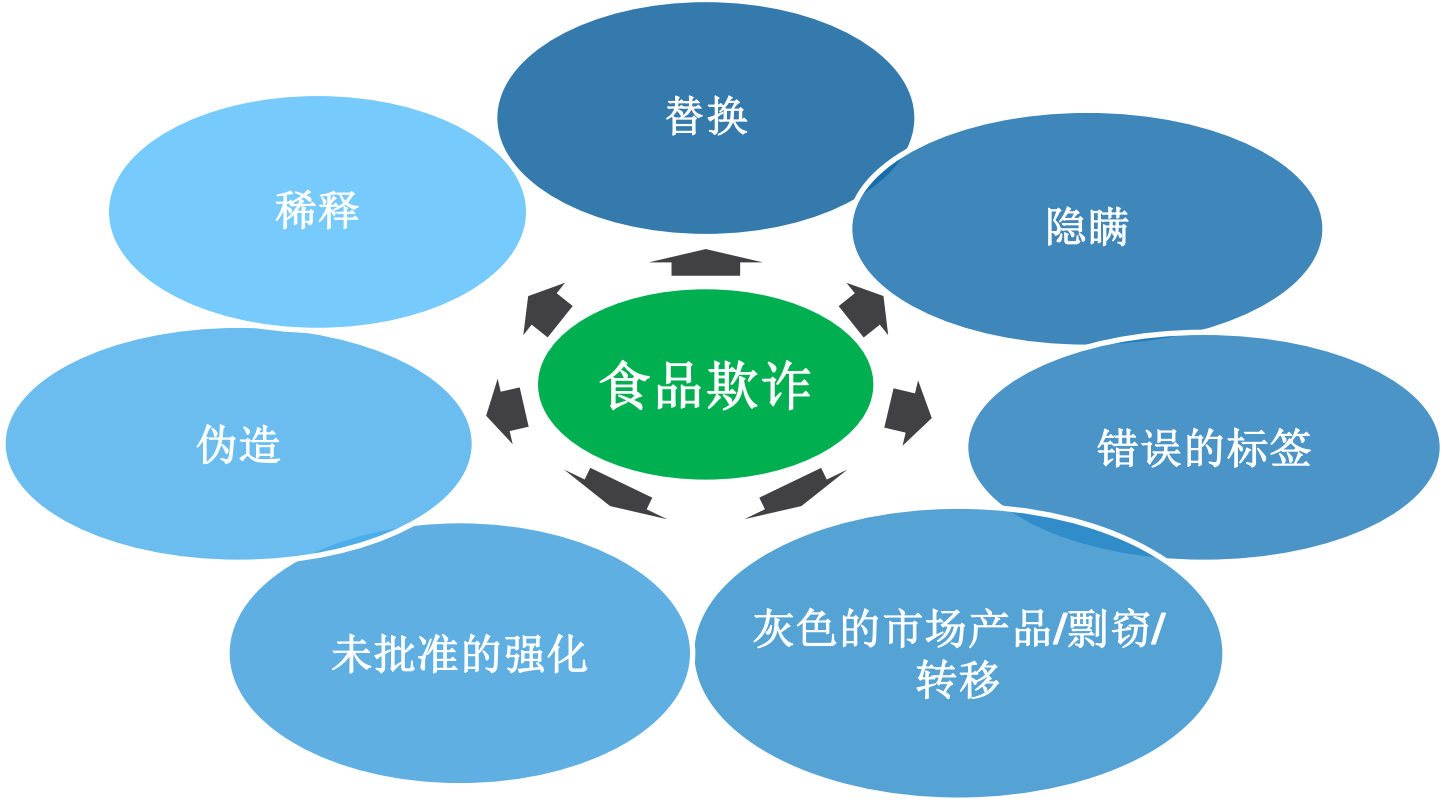
食品欺诈预防：对食品及饲料供应链所有形式的经济动机的，可能会影响消费者健康的故意的掺假的预防的过程（中文仅供参考）

定义

food fraud: A collective term encompassing the deliberate and intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging, labelling, product information or false or misleading statements made about a product for economic gain that could impact consumer health. --------GFSI

食品欺诈：一个集合的术语，包括对食品的故意和故意的替代，篡改或虚假的食品、食品原料、食品包装、标签、产品信息，可能影响消费者健康的以获得经济利益为目的虚假或误导的产品陈述。---GFSI（中文仅供参考）

分类



例子

共有7种主要的食品欺诈（举例如下）：

错误标签
- 有效期、出处（原产地不安全）有毒日本八角标注为中
- 错误标签回收的食用油

稀释
- 以非饮用水/不安全的水冲淡产品
- 以有潜在毒性的树油稀释橄榄油

隐瞒
- 家禽注射激素以隐瞒疾病
- 在新鲜水果上应用有害的食品色素以掩盖缺陷

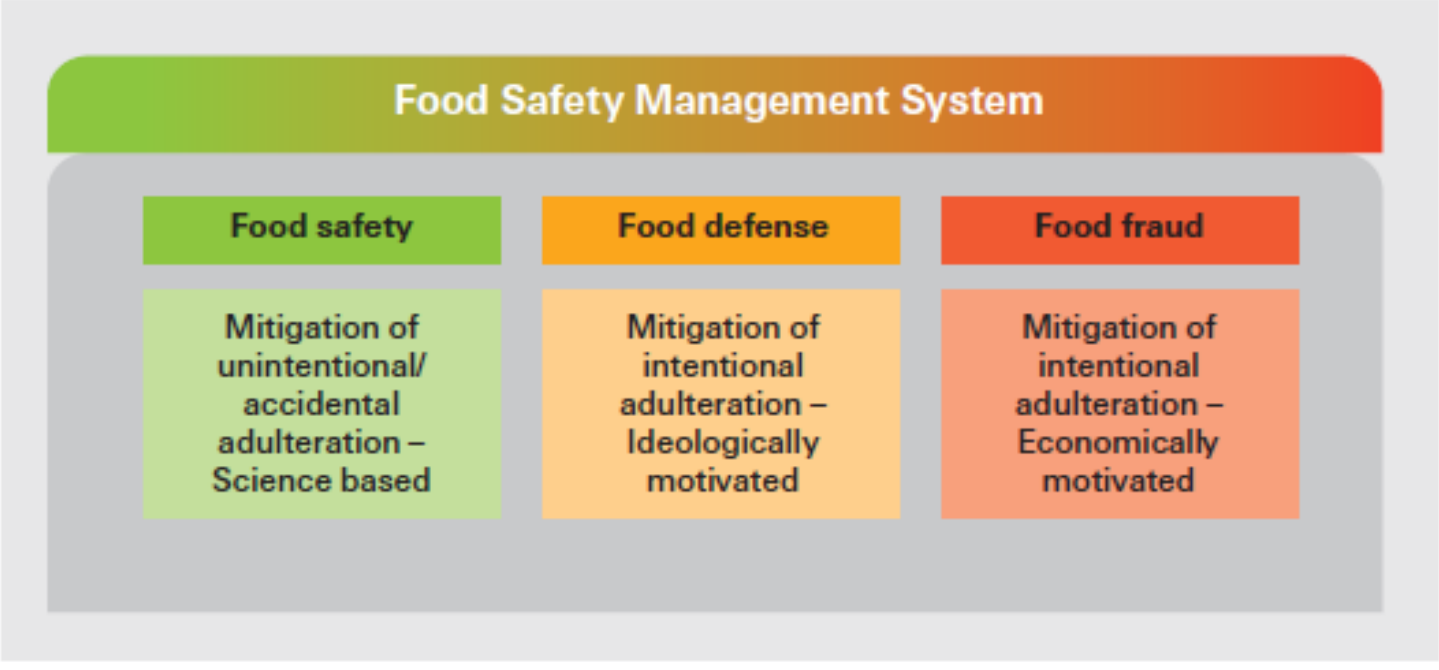
假冒
- 模仿受欢迎的食品 – 未以可接受的安全保证方式生产

替换
- 以矿物油取代部分葵花籽油
- 水解皮革蛋白用于牛奶中

未经批准的强化
- 添加三聚氰胺以提高蛋白质价值
- 使用未经批准的添加剂（在香料中添加苏丹染料）

灰色市场生产/防盗/转移
- 销售未报告的过量产品
- 失去特许权使用费

食品欺诈管理的意义



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相关标准要求

1、BRC Food Issue 7 条款 5.4

2、FSSC22000 第4版 额外要求：2.1.4.6

2.1.4.6.1 Vulnerability assessment

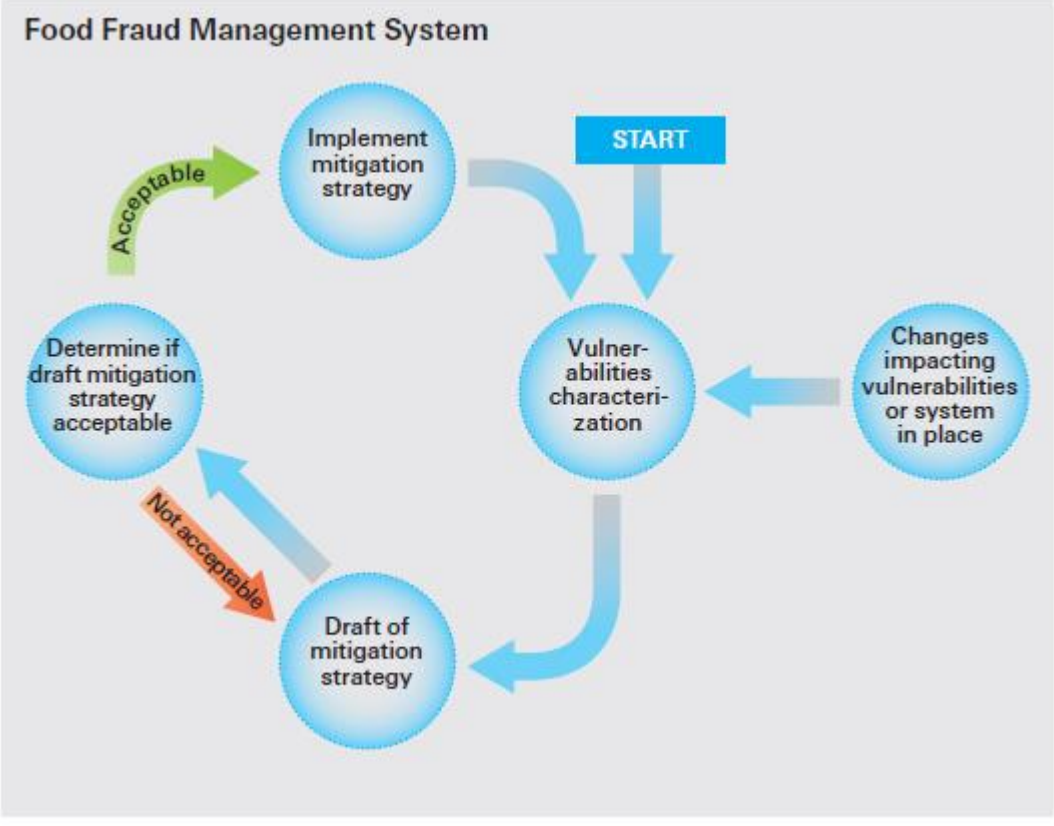
2.1.4.6.2 Preventive measures

2.1.4.6.3 Annual review

3、GFSI要求：FSM EIV 21　Food fraud vulnerability assessment：The standard shall require that the organisation has a documented food fraud vulnerability assessment procedure in place to identify potential vulnerability and prioritise food fraud mitigation measures.

-- GFSI BENCHMARKING REQUIREMENTS GFSI Guidance Document Version 7.1 - PART III - EIV PROCESSING OF AMBIENT STABLE PRODUCTS

食品欺诈管理体系的过程



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食品欺诈管理体系

PRE-SCREENING
Recognize potential issues based on criteria, e.g., history of adulteration
Step 1
VULNERABILITY ASSESSMENT
Identify vulnerabilities that could lead to fraud
Step 2
IMPACT ASSESSMENT
Determine public health and economic impact
Step 3
OVERALL RISK ASSESSMENT
Define risk level based on vulnerabilities and impact
Step 4
EMA PREVENTIVE CONTROL PLAN
Establish a plan to mitigate risk and meet regulatory requirements

造成食品欺诈的风险因素

- 原料的性质和低成本替代品的相识性
- 食品链的复杂性-进入原料的容易程度
- 市场上的价格波动及其他经济因素
- 替换或掺假的历史证据
- 供应商的历史
- 识别掺假的检测方法的可用性

常见食品欺诈风险评估工具

1、美国药典委员会USP –食品欺诈降低指南

2、SSAFE 食品欺诈脆弱性评估工具

3、BRC Global Standard for Food Safety Issue 7 Understanding Vulnerability Assessment UK Unlocked PDF Version SKU: ISBN - 978-1-78490-273-5 £45.00

美国药典委员会USP –Food Fraud Mitigation Guidance

影响因素评估矩阵

对脆弱性的影响

影响因素

	Contributing Factor	Contribution to Vulnerability: Low [a]	Medium-Low [a]	Medium [a]	Medium-High [a]	High [a]
供应链	Supply chain	Firm vertically integrated	Supplier vertically integrated	Supplier manufactures	Upstream supplier manufactures	Open market
审核策略	Audit strategy	Robust, onsite, with numerous anti-fraud measures	Robust, onsite, with limited anti-fraud measures	Immature, onsite, with limited anti-fraud measures	Immature onsite audit strategy with no anti-fraud measures, or strategy with limited anti-fraud measures in development	No onsite audits being used
供方关系	Supplier relationship	Trusted supplier and previously purchased ingredient(s)	Trusted supplier and new ingredient	Established supplier and some relationship	Established supplier and no prior relationship	Unestablished supplier and no prior relationship
供方法规、质量及安全问题历史	History of supplier regulatory, quality, or safety issues	No known issues	Few minor issues, quickly resolved	Recurrent issues or resolution concerns	Multiple persistent issues indicating lack of responsiveness to concerns; some evidence of inadequate controls	Strong evidence of quality or safety concerns; inadequate controls
QA方法及规范的敏感性	Susceptibility of QA methods and specs	More than sufficiently characterizes ingredient and can detect known and potentially unknown adulterants	Moderately sufficient to characterize ingredient and detect known adulterants	Moderately sufficient to characterize ingredient but some known adulterants may not be detected	Limited characterization of ingredient and limited screening for select adulterants	Limited to no characterization of ingredient and some known adulterants will not be detected
测试频率	Testing frequency	Intensive-every lot tested by buyer	Random lots tested by buyer	Testing done at yearly or other limited intervals as part of supplier qualification	No testing done, reliance on Certificate of Analysis	No testing done. COA either not present or not specific to lot/shipment.
地域考虑	Geopolitical Considerations	Single component ingredient sourced from a single geographic origin of low concern	Ingredient comprised of two to several components sourced from geographic origin(s) of low concern	Ingredient comprised of a single to few components that have originated or transited through a region or regions with some geopolitical concerns	Ingredient comprised of several components; some originated or transited through regions with some geopolitical concerns	Ingredient comprised of one or more components that originated or transited through one or more regions exhibiting several characteristics of geopolitical concern
欺诈历史	Fraud history	No reports or few known reports with no or unknown validity	Low to moderate number of reports with limited or unknown validity	Moderate number of reports with limited degree of validity	Moderate number of reports with good degree of validity; or High number with limited validity	High to moderate number of reports, some with high degree of validity, and/or evidence of an ongoing incident
经济异常	Economic anomalies	Nothing unusual	Isolated cases	Frequent but unrelated cases	Common but focused cases	Common and broad cases

Controllable Factors

Uncontrollable factors

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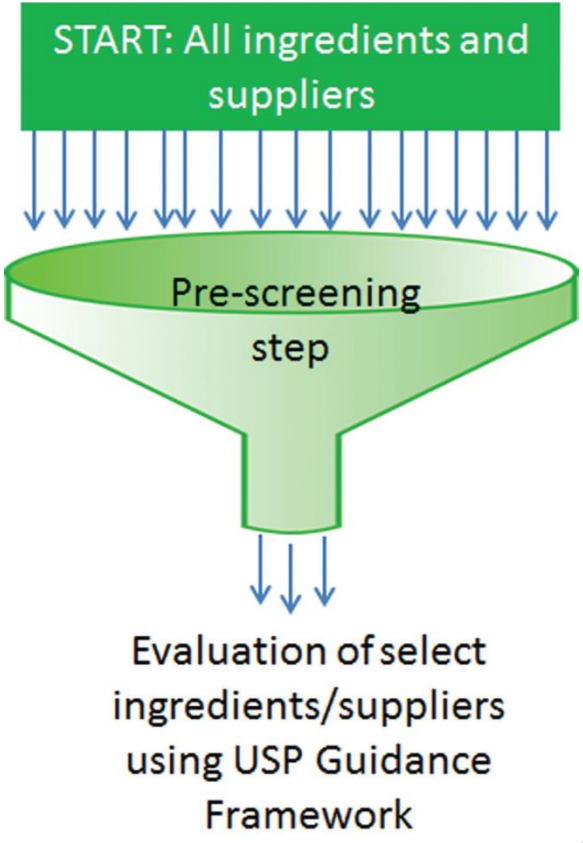
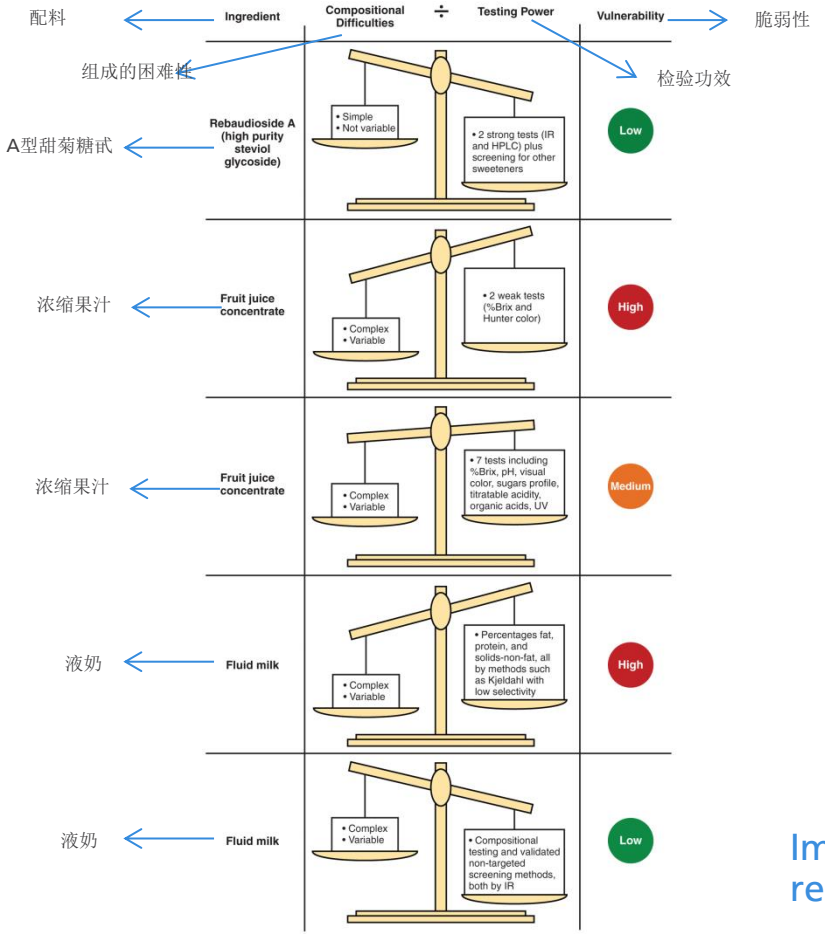
增加预过滤步骤以
帮助实施USP指南框架



美国药典委员会USP –Food Fraud Mitigation Guidance

分析方法敏感性的例子



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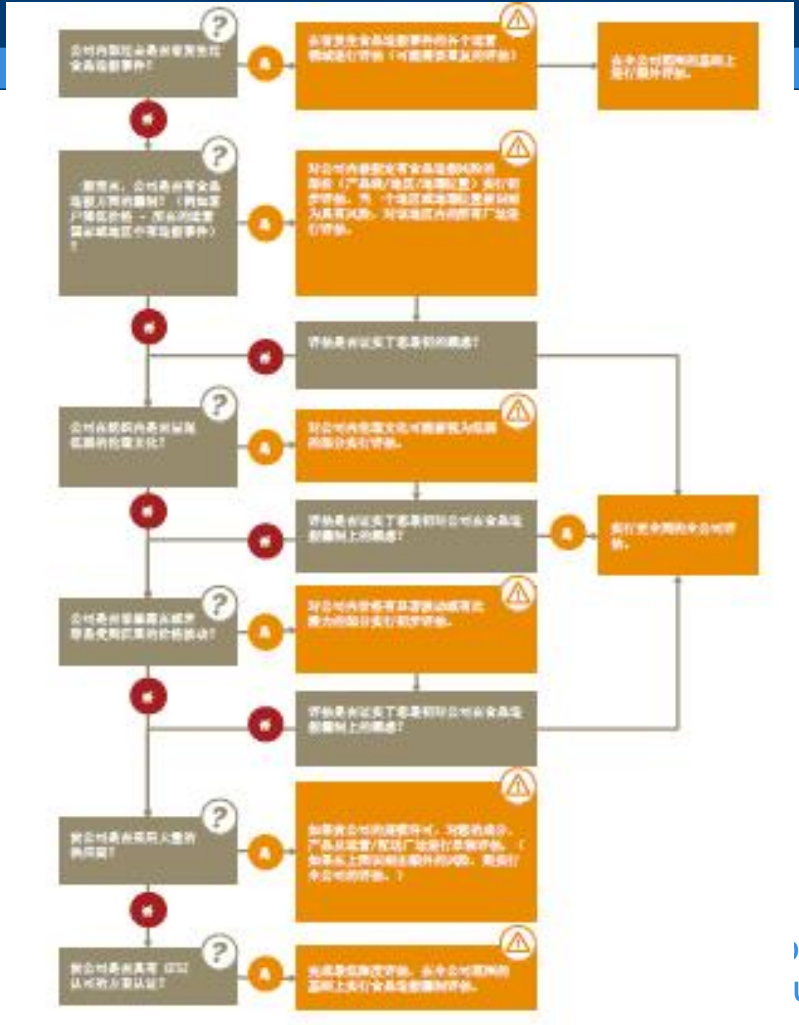
SSAFE 食品欺诈脆弱性评估工具介绍

判断树



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SSAFE 食品欺诈脆弱性评估工具介绍

评估小组

食品造假漏洞评估需要广泛的专业知识。根据所选择的评估范围，可能需要一般控管（例如内部审计、安全、质量保证、实验室分析、外部审计、供应链）、采购、财务等其他管理功能的知识。对于回答各个问题可能需要何种类型的专业知识，本工具提供了相关的建议。

大型公司应组成一个多功能的小组，而规模较小的公司则可能需要来自专门领域的专家或顾问的外部支持。

SSAFE 食品欺诈脆弱性评估工具介绍

组成部分

食品造假漏洞评估工具包含了七个部分：

i. 一份关于公司信息和在工具中填写信息之小组的一般信息工作表
ii. 一份帮助用户决定将工具应用在何处的决策树图表
iii. 五十个评估问题
iv. 提供调查结果总体概览的主要网状图
v. 提供调查结果深入洞察的详细网状图
vi. 让用户能针对已识别的漏洞准备潜在缓解策略和技术的输出表
vii. 一份总结评估结果的最终报告

SSAFE 食品欺诈脆弱性评估工具介绍

问题

本工具包括评估食品造假漏洞的**五十个**问题，问题的架构分两个方面。第一个方面涉及影响犯罪行为的要素，即机会、驱动力和控制措施。第二个方面涉及公司及其外部环境，即其直接供应商和客户、其供应链，和国内（国际）治理环境。

机会部分包括与产品和加工特性、供应链/产业网络的特点，以及特定食品产品和成分造假之历史证据相关的指标。

驱动力部分包括针对组织方面问题的指标，如商业文化、犯罪历史、公司、供应商和客户的经济状况。驱动力的指标又按照第二个方面细分 – 环境层。提供针对自己公司、直接供应商，以及更广泛环境的指标。

SSAFE 食品欺诈脆弱性评估工具介绍

控制措施部分包括 19 项针对缓解和应对控制措施的指标。另外也针对环境层细分，即内部硬性控制、内部软性控制，以及对直接供应商/客户层级和更广泛环境的外部控制。

对于每一项机会和驱动力的指标，提供了三项描述，反映三个风险水平（低、中、高）。同样地，对于每项控制指标亦提供了三项描述来反映控制水平。在每项指标下需选择反映公司情况的描述。

其他资源

GUIDANCE DOCUMENTS

- **U.S. Pharmacopeia Appendix XVII:** Food fraud mitigation guidance http://www.usp.org/sites/default/files/usp_pdf/EN/fcc/food-fraud-mitigation-guidance.pdf
- **BRC Global Standard for Food Safety Issue 7 Understanding Vulnerability Assessment** http://www.brcbookshop.com/p/1782/brc-global-standard-for-food-safety-issue-7-understanding-vulnerability-assessment-uk-unlocked-pdf-version
- **UK Food and Drink Federation (FDF)** http://www.fdf.org.uk/corporate_pubs/Food-Authenticity-guide-2014.pdf
- **TACCP (Threat Assessment and Critical Control Point):** a practical guide 2014 (Campden BRI) http://www.campdenbri.co.uk/publications/pubDetails.php?pubsID=4640

SELF-ASSESSMENT TOOLS

- **SSAFE Food Fraud Assessment Tool** https://ffv.pwc.com; www.ssafe-food.org
- **US Food and Drug Administration (FDA)** Vulnerability Assessment Software http://www.fda.gov/Food/FoodDefense/ToolsEducationalMaterials/ucm295900.htm

其他资源

STANDARDS

- **BS 10501**, Guide to implementing procurement fraud controls http://shop.bsigroup.com/ProductDetail/?pid=000000000030282473
- **BRC Global Standard Food Safety** Issue 7 http://www.brcbookshop.com/p/1656/brc-global-standard-for-food-safety-issue-7-us-free-pdf

SUPPLY CHAIN SECURITY

- **BS ISO 28000**, Specification for security management systems for the supply chain
- **BS ISO 28002**, Security management systems for the supply chain – Development of resilience in the supply chain – Requirements with guidance for use
- **PD CEN/TR 16412**, Supply chain security (SCS) – Good practice guide for small and medium sized operators

Open discussion

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