

# FFI Report

## Glossary of Food Fraud Related Terms

Date/ Version: February 4, 2018 -- By John Spink, PhD

This is a Glossary of Food Fraud Related Terms.” The version is identified by the update date. Anyone and everyone have the opportunity to comment or recommend edits by accessing the link to the “Google Document” listed below. A few key terms are presented here (full citations in the attachment):

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| <b>Food Fraud (Summary):</b> illegal deception for economic gain using food   | <b>Food Authenticity (Elliott Review):</b> “is about ensuring that food offered for sale or sold is of the nature, substance and quality expected by the purchaser”   | <b>Food Crime (General):</b> “this has two commons definitions of (1) incidents involving food that is a violation of a criminal statute and (2) Food Fraud incidents that are conducted on a larger scale.”  |
| <b>Food Fraud (GFSI):</b> “A collective term encompassing the deliberate and intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging, labeling, product information or false or misleading statements made about a product for economic gain that could impact consumer health.” | <b>Economically Motivated Adulteration –EMA (US FDA):</b> “Fraudulent, intentional substitution or addition of a substance in a product for the purpose of increasing the apparent value of the product or reducing the cost of its production, i.e., for economic gain.” | <b>Food Integrity (Elliott Review):</b> “can be seen as ensuring that food which is offered for sale or sold is not only safe and of the nature, substance and quality expected by the purchaser but also captures other aspects of food production, such as the way it has been sourced, procured and distributed and being honest about those elements to consumers.” |
| <b>Vulnerability:</b> “a weakness or flaw that creates opportunities for undesirable events related to the system (“system design”)”  | <b>Prevention:</b> “intended to reduce or eliminate the likelihood of the event occurring”  | <b>Hazard:</b> “is an event that has not occurred and could cause harm if not addressed”  |
| <b>Risk:</b> “is an uncertainty of an outcome that is assessed in terms of likelihood and consequence”  | <b>Mitigation:</b> “intended to reduce the consequence of the event”  | <b>Threat:</b> “the cause of an unwanted event that includes generally known variables or attributes of the source of the negative consequence”   |

There are almost 300 words in the over 20 page glossary. This is an active process so anyone and everyone are invited to provide comments, edits, or recommendations by accessing the “Google Document.” The glossary version is identified by the date..

Thank you for participating in the process of clarifying the foundation of food fraud prevention. FFI

- Reference: To comment please link to the document posted on Google-Documents:
- [https://docs.google.com/document/d/1EMKcGyItK8SBhr1VPPT2\\_LM\\_duWLTmVe2xe5N4RehE/edit?ts=5a762b58](https://docs.google.com/document/d/1EMKcGyItK8SBhr1VPPT2_LM_duWLTmVe2xe5N4RehE/edit?ts=5a762b58)



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| <p><b>Food Fraud (Summary):</b> illegal deception for economic gain using food. <br/>Can you phrase it as “illegal deception of food for economic gain”</p>  | <p><b>Food Authenticity (Elliott Review):</b> “is about ensuring that food offered for sale or sold is of the nature, substance and quality expected by the purchaser”</p>   | <p><b>Food Crime (General):</b> “this has two commons definitions of (1) incidents involving food that is a violation of a criminal statute and (2) Food Fraud incidents that are conducted on a larger scale.”</p>  |
| <p><b>Food Fraud (GFSI):</b> “A collective term encompassing the deliberate and intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging, labeling, product information or false or misleading statements made about a product for economic gain that could impact consumer health.”</p> | <p><b>Economically Motivated Adulteration –EMA (US FDA):</b> “Fraudulent, intentional substitution or addition of a substance in a product for the purpose of increasing the apparent value of the product or reducing the cost of its production, i.e., for economic gain.”</p> | <p><b>Food Integrity (Elliott Review):</b> “can be seen as ensuring that food which is offered for sale or sold is not only safe and of the nature, substance and quality expected by the purchaser but also captures other aspects of food production, such as the way it has been sourced, procured and distributed and being honest about those elements to consumers.”</p> |
| <p><b>Vulnerability:</b> “a weakness or flaw that creates opportunities for undesirable events related to the system (“system design”)”. <b>Some addition- Vulnerability is weakness in the system or rigor and consistency in application of food safety or security system.</b></p>  | <p><b>Prevention:</b> “intended to reduce or eliminate the likelihood of the event occurring”. <b>May be some additions for prevention is more for preventing -stop from happening.</b></p>  | <p><b>Hazard:</b> “is an event that has not occurred and could cause harm if not addressed”</p>  |
| <p><b>Risk:</b> “is an uncertainty of an outcome that is assessed in terms of likelihood and consequence”. <b>I would rather call it as potential for loss/damage of assets (food) and can be assessed as likelihood and consequence.</b></p>  | <p><b>Mitigation:</b> “intended to reduce/lessen or decrease the consequence of the event”</p>   | <p><b>Threat:</b> “the cause of an unwanted event that includes generally known variables or attributes of the source of the negative consequence”</p>   |

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## Appendix: Glossary of Food Fraud Related Terms

These are direct quotes unless clearly noted by “Comment.” Key food fraud terms are in red font.

1. **Accreditation (GFSI):** A process by which an authoritative body gives formal recognition of the competence of a certification body to provide certification services against an international standard.
2. **Accreditation Body (FDA, FSMA, USC):** The term ‘accreditation body’ means an authority that performs accreditation of third-party auditors.
3. **Accreditation Body (GFSI):** An agency having jurisdiction to formally recognise the competence of a certification body to provide certification services.
4. **Adulterant (Summary):** intentional act where a substance is added to a food
5. **Adulterant (ISO TC292):** Summary: materials or substances intentionally added to the product for economic gain (or avoiding loss) or for intentional harm; “materials added to improve the low quality of the product or to mask its defects.” (ISO 2451:2017, ISO 7540:2006)
6. **Adulterant (Keyword search, USC):** Lethal adulterant.-The offense involved the importation, manufacture, or distribution of a controlled substance (as defined in section 102 of the Controlled Substances Act (21 U.S.C. 802)), mixed with a potentially lethal adulterant, and the defendant was aware of the presence of the adulterant. (18 USC 3592). (Comment- a keyword search of the US Code was conducted to identify US government definitions of the term “adulterant.” One definition was found and the term “adulterant” was used twice in that definition of “lethal adulterant.”)
7. **Adulterant (USP):** Any undeclared biological or chemical agent, foreign matter, or other substance in food that may (though not necessarily) compromise food safety or suitability. (Noted to be adapted from the definition of "Food contaminant" from the Codex Alimentarius glossary at <http://www.fao.org/3/a-y8705e/y8705e07.htm>)” (USP non-Targeted Methods report, DRAFT)
8. **Adulterant (Webster’s):** An adulterating substance or agent. (See “adulterate”)
9. **Adulterate (Black’s law):** To debase or make impure by adding a foreign or inferior substance.
10. **Adulterate (-ion, -ed) (ISO TC292):** Summary: based on the word “adulterant,” “adulterated” is the past tense and “adulteration” is the action of including an adulterant – this is in conflict with the FDA Food Drug & Cosmetics Act definition of “Adulterated Foods” that does not require a adulterant.; “Adulterated soluble coffee: products prepared by the co-extraction or the separate extraction of roasted coffee beans and of raw or roasted materials other than coffee beans, where the product is sold as pure soluble coffee and the addition of the non-coffee bean material is not declared on the label,” “alteration of the composition of a lot (3.18) of cocoa by any means whatsoever” (ISO 24114:2011)
11. **Adulterate (Webster’s):** “to corrupt, debase, or make impure by addition of a foreign or inferior substance or element, to prepare for sale by replacing more valuable with less valuable or inert ingredients.”
12. **Adulterated Foods - re., aspects with no health hazard (FD&C Act, quotes) –** “(a) (4) if it has been prepared, packed, or held under insanitary conditions whereby it may have become contaminated with filth, or whereby it may have been rendered injurious to health;” and “(h) Reoffer of food previously denied admission: If it is an article of food imported or offered for import into the United States and the article of food has previously been refused admission.”
13. **Adulterated Foods (FD&C Act, GMP, Interstate Commerce):** “Thus, instead of having to prove that the food is adulterated, insanitary conditions are considered sufficient to show that the food might

have become adulterated. “ Further: “Two sections of the FDCA are directly related to conditions in a facility where food has been manufactured. Section 402 (a)(3) specifies that food has been manufactured under such conditions that it is unfit for consumption. and Section 402 (a)(4) considers that food may be adulterated if it is prepared, packed, or held under insanitary conditions whereby it may have become contaminated with filth or rendered injurious to health. ...These provisions are unlike other parts of Section 402, in that they relate to the conditions of a facility where food is produced or stored. Thus, instead of having to prove that the food is adulterated, insanitary conditions are considered sufficient to show that the food might have become adulterated.”

14. **Adulterated Foods (FD&C Act, Ostroff Summary, 2017):** “If it bears or contains any poisonous or deleterious substance which may render it injurious to health.”, “if any valuable constituent has been in whole or in part omitted or abstracted therefrom; or if any substances has been substituted wholly or in part...; or if damage or inferiority has been concealed... or if any substance has been added thereto or mixed or packed therewith, so as to increase its bulk or weight, or reduce its quality or strength, or make it appear better or of greater value than it is.”
15. **Adulterated, Foods (FDA):** Comment- a violation of the Food, Drug & Cosmetics Act section on “Adulterated Foods”
16. **Adulteration (Black’s law):** The act of corrupting or debasing. The term is generally applied to the act of mixing up with food or drink intended to be sold other matters of an inferior quality, and usually of a more or less deleterious quality.
17. **Adulteration (Webster’s):** “-tion” is “the action of” or “the result of” adulterate (see “adulterate”)
18. **Adulterator (Black’s law):** A forger; a counterfeiter, counterfeiters of money; (Comment- there is sometimes translation or language confusion with the term “Adulterer” which is “One who corrupts; one who seduces another man's wife.”)
19. **Agent (Black’s law):** “something that produces an effect <an intervening agent>”; (Comment- the term “agent” is used in FSMA referring to the source of a “hazard that requires a preventive control.”)
20. **Agent (USC):** The term "agent" means a nuclear, biological, chemical, or radiological substance that causes agricultural disease or the adulteration of products regulated by the Secretary of Agriculture under any provision of law. (7 USC 8901)
21. **Audit (GFSI):** A systematic and functionally independent examination to determine whether activities and related results comply with a conforming scheme, whereby all the elements of this scheme should be covered by reviewing the supplier’s manual and related procedures, together with an evaluation of the production facilities.
22. **Audit Agent (FDA, FSMA, USC):** The term ‘audit agent’ means an individual who is an employee or agent of an accredited third-party auditor and, although not individually accredited, is qualified to conduct food safety audits on behalf of an accredited third-party auditor.
23. **Audit, Consultative (FDA, FSMA, USC):** The term ‘consultative audit’ means an audit of an eligible entity— “(A) to determine whether such entity is in compliance with the provisions of this Act and with applicable industry standards and practices; and (B) the results of which are for internal purposes only.”
24. **Auditor (GFSI):** A person qualified to carry out audits for or on behalf of a certification body.
25. **Auditor, Accredited Third-Party (FDA, FSMA, USC):** The term ‘accredited third-party auditor’ means a third-party auditor accredited by an accreditation body to conduct audits of eligible entities to certify that such eligible entities meet the applicable requirements of this section. An accredited third-party auditor may be an individual who conducts food safety audits to certify that eligible entities meet the applicable requirements of this section.

26. **Auditor, Third-Party (FDA, FSMA, CFR):** The term ‘third-party auditor’ means a foreign government, agency of a foreign government, foreign cooperative, or any other third party, as the Secretary determines appropriate in accordance with the model standards described in subsection (b)(2), that is eligible to be considered for accreditation to conduct food safety audits to certify that eligible entities meet the applicable requirements of this section. A third-party auditor may be a single individual. A third-party auditor may employ or use audit agents to help conduct consultative and regulatory audits.
27. **Authentic, Food (Elliott Review)** – “...reflects a reasonable assumption made on the basis of the labeling provided on the finished product bought by the consumer (or the description in a menu entry). ‘Reasonableness’ should be a Wednesbury test in that it should assume no specialist knowledge of the food industry.
28. **Authentic, General (ISO TC292):** Summary: not false or imitation, genuine, having the apparent quality or character represented; “Authentic material: document-based information the accuracy, reliability and integrity of which are maintained over time” (ISO/TR 18492:2005), “Authentic material good: material good produced under the control of the legitimate manufacturer, originator of the good or holder of intellectual property rights” (ISO 12931:2012), “Authentic record: record that can be proven: a) to be what it purports to be, b) to have been created or sent by the person purported to have created or sent it, and c) to have been created or sent at the time purported” (ISO 18829:2017); Note: Webster’s Dictionary: “2 : not false or imitation, genuine”; Genuine – “1 a : actually having the reputed or apparent qualities or character, b : actually produced by or proceeding from the alleged source or author the signature is genuine.”
29. **Authentication (ISO TC292):** Summary: The act or process of proving something is genuine, assurance of the claimed identity such as origin or performance; “Process of determining whether an entity or data is/are who or what, respectively, it claims to be” (ISO/IEC 18000-63:2015), “action of proving that someone or something is genuine” (ISO 8583-1:2003), “assurance of the claimed identity,” “provision of assurance that a claimed characteristic of an entity is correct” (ISO/IEC 27000:2016), “process of determining whether an entity or data is/are who or what, respectively, it claims to be,” and “the act of proving or showing to be of undisputed origin or veracity.”
30. **Authentication method (ISO TC292):** process of identity authentication using one or more authentication factors (ISO/IEC TR 29156:2015)
31. **Authentication solution (ISO TC292):** complete set of means and procedures that allows the authentication of a material good to be performed (ISO 12931:2012)
32. **Authentication tool (ISO TC292):** set of hardware and/or software system(s) that is part of an anticounterfeiting solution and is used to control of the authentication element (ISO 12931:2012)
33. **Authenticity (ISO TC292):** Summary: “Property of being of undisputed origin and not a copy, authenticated, and having the origin supported by unquestionable evidence” (ISO/TR 17427-4:2015), “property that an entity is what it claims to be,” “The property that the claimed data source can be verified to the satisfaction of the recipient.”
34. **Biodefense / bio-defense (USG):** “...includes “medical measures to protect people against bioterrorism” which includes “medicines and vaccinations” (NLM 2016). The World Health Organization generally defines **biosecurity** as “protecting biological resources from foreign or invasive species” (UNOG). (Note: USG is US Government)
35. **Biosafety/ bio-safety (WHO/UN):** “... as “prevent unintentional exposure to pathogens and toxins, or their accidental release“(UNOG). “ (Spink, Moyer, Huff, Et Al, Working)
36. **Biosecurity, Agricultural (USC):** " means protection from an agent that poses a threat to- (A) plant or animal health; (B) public health as it relates to the adulteration of products regulated by the

Secretary of Agriculture under any provision of law that is caused by exposure to an agent; or (C) the environment as it relates to agriculture facilities, farmland, and air and water within the immediate vicinity of an area associated with an agricultural disease or outbreak. (7 USC 8901)

37. **Bioterrorism/ bio-terrorism (USG):** "...which is defined by the US FDA as "threatened or actual terrorist attack on the U.S. food supply and other food-related emergencies" (FDA 2002) and by the USA Center for Disease Control (CDC) "the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. ... Biological agents can be spread through the air, through water, or in food" (CDC 2013). Examples are from the USA Center for Disease Control (CDC) includes Anthrax, Botulism, Brucellosis, Plague, Smallpox and Tularemia (CDC 2013). " (Spink, Moyer, Huff, Et Al, Working)
38. **Black Economy (Black's law):** See "Shadow Economy" or "Black Market."
39. **Black Market (Black's law):** An illegal market for goods that are controlled or prohibited by the government, such as the underground market for prescription drugs.
40. **Certification (GFSI):** A process by which accredited certification bodies, based on an audit, provide written assurance those food safety requirements and management systems and their implementation conform to requirements.
41. **Certification Body - CB (GFSI):** A provider of certification services, accredited to do so by an Accreditation Body.
42. **Certification Program Organization - CPO (GFSI):** The organization that oversees the A food safety scheme that has successfully completed the GFSI Benchmark Process.
43. **Code, Penal (Black's Law):** A compilation of criminal laws, usually defining and categorizing the offenses and setting forth their respective punishments.
44. **CODEX:** abbreviation for Codex Alimentarius (Codex Alimentarius 2014)
45. **Conforming scheme (GFSI):** A food safety scheme that has successfully completed the GFSI Benchmark Process.
46. **Consequence (DHS Lexicon 2017):** effect of an event, incident, or occurrence
47. **Consequence (ISO 31000):** "outcome of an event (2.17) affecting objectives"; NOTE 1 an event can lead to a range of consequences. NOTE 2 a consequence can be certain or uncertain and can have positive or negative effects on objectives. NOTE 3 consequences can be expressed qualitatively or quantitatively. NOTE 4 initial consequences can escalate through knock-on effects. [ISO Guide 73:2009, definition 3.6.1.3]
48. **Contaminant (CODEX, Procedural Manual):** "Codex Alimentarius defines a contaminant as follows: "Any substance not intentionally added to food, which is present in such food as a result of the production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food or as a result of environmental contamination. The term does not include insect fragments, rodent hairs and other extraneous matter." (CODEX STAN 193-1995)
49. **Contaminant (FDA, FSMA IA, Guide):** Contaminant means, for purposes of this part, any biological, chemical, physical, or radiological agent that may be added to food to intentionally cause illness, injury, or death.
50. **Contaminant (FSMA-IA):** substances intentionally added to cause harm (FSMA IA Final Rule, Part B. Other definitions, 2. Contaminant)
51. **Contamination (IFS):** Introduction or occurrence of a contaminant in food or food environment. Contamination does include: physical, chemical, biological contamination. Contamination can also mean correlation of packages among themselves.
52. **Copyright (Black's law):** 1. the right to copy; specifically, a property right in an original work of authorship (including literary, musical, dramatic, choreographic, pictorial, graphic, sculptural, and

architectural works; motion pictures and other audiovisual works; and sound recordings) fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt, distribute, perform, and display the work.

53. **Copyright Infringement (Black's law):** The act of violating any of a copyrights owner's exclusive rights granted by the federal Copyright Act.
54. **Counterfeit (Black's law):** To unlawfully forge, copy, or imitate an item, especially money or a negotiable instrument (such as a security or promissory note) or other officially issued item of value (such as a postage stamp or a food stamp), or to possess such an item without authorization and with the intent to deceive or defraud by presenting the item as genuine. Counterfeiting includes producing or selling an item that displays a reproduction of a genuine trademark, usually to deceive buyers into thinking they are purchasing genuine merchandise. (Includes: counterfeiter)
55. **Counterfeit Trademark (Black's law):** A spurious mark that is identical to, or substantially indistinguishable from, a registered trademark. – Also termed “counterfeit mark.”
56. **Counterfeiting (Black's law):** (The unlawful acts of counterfeit) The unlawful forgery, copying, or imitating of an item, especially money or a negotiable instrument (such as a security or promissory note) or other officially issued item of value (such as a postage stamp or a food stamp), or to poses such an item without authorization and with the intent to deceive or defraud by presenting the item as genuine. Counterfeiting includes producing or selling an item that displays a reproduction of a genuine trademark, usually to deceive buyers into thinking they are purchasing genuine merchandise.
57. **Crime (Black's Law):** An act that the law makes punishable; the breach of a legal duty treated as the subject-matter of a criminal proceeding. – Also termed “criminal wrong.”
58. **Crime, Consensual (Black's Law):** See “Victimless Crime.”
59. **Crime, Corporate (Black's Law):** A crime committed by a corporation's representatives acting on its behalf. / Although a corporation as an entity cannot commit a crime other than through its representatives, it can be named a criminal defendant. –Also termed “organizational crime.”
60. **Crime, Economic (Black's Law):** A nonphysical crime committed to obtain a financial gain or professional advantage. (Two types: in regular business activities [e.g. embezzlement] and white collar crime [e.g. larger organized activity])
61. **Crime, Occupational (Black's Law):** A crime that a person commits for personal gain while on the job.
62. **Crime, Organized (Black's Law):** 1. Wide-spread criminal activities that are coordinated and controlled through a central syndicate. See “Racketeering.” 2. Persons involved in these criminal activities; a syndicate of criminals who rely on their unlawful activities for income.
63. **Crime, Statutory (Black's Law):** A crime punishable by statute.
64. **Crime, Victimless (Black's Law):** A crime that is considered to have no direct victim, usually because only consent adultery [see Adultery] is involved. Examples are possession of illicit drugs and deviant sexual intercourse between consenting adults.
65. **Crime, White-collar (Black's Law):** A nonviolent crime usually involving cheating or dishonesty in commercial matters. Examples include fraud, embezzlement, bribery, and insider trading.
66. **Crisis: (USG):** “...is an event that has occurred – or is occurring – that has a confirmed harm (ANSI 2009) – this includes imminent hazard (21 CFR), attack, emergency (ISO 2007b, 21 CFR, FDA 2016), disaster, etc. “ (Spink, Ortega, Chen & Wu, 2017)
67. **Critical Control Point (CCP) (FDA, FSMA, USC):** The term ‘critical control point’ means a point, step, or procedure in a food process at which control can be applied and is essential to prevent or eliminate a food.

68. **Diversion (Black's Law):** 1. A deviation of alteration from the natural course of things; especially, the unauthorized alteration of a watercourse to the detriment of the lower riparian owner, or the unauthorized use of funds. 2. A distraction or pastime.
69. **Economic Adulteration (TBD):** Undefined, there no formal definition or glossary term was found. (NOTE: review, consider 1996 FDA Juice Adulteration report)
70. **Economic Adulteration (Webster's Dictionary):** combination of the definition of economic ("of or relating to the production, distribution, and consumption of goods and services" and adulteration ("the action of" or "the result of" "to corrupt, debase, or make impure by addition of a foreign or inferior substance or element, to prepare for sale by replacing more valuable with less valuable or inert ingredients."
71. **Economically motivated adulteration - EMA (PAS96:2014):** A typical feature of EMA (see 3.2) is the substitution of a low cost item in place of a relatively high cost component/ingredient. The TACCP team needs to be alert to the availability of such alternatives. An example where this may happen is when added value is claimed, (e.g. organic, non-gm, locally grown, free range or with protected designations of origin). The attacker is likely to have ready access to lower value equivalents, which are almost indistinguishable.
72. **Economically Motivated Adulteration (CODEX EWG, DRAFT 11/2017):** Comment – under review, currently defined as an adulterant-substance; "Economically motivated adulteration is the deliberate addition (including substitution) of an adulterant to a food item for financial gain through increasing the apparent quality or value of the product or reducing the cost of its production
73. **Economically motivated adulteration (EMA) – "FDA Working Definition" (FDA 2009):** "Fraudulent, intentional substitution or addition of a substance in a product for the purpose of increasing the apparent value of the product or reducing the cost of its production, i.e., for economic gain." (See Economically Motivated Hazard, Economically Motivated Food Safety Hazard, etc.) (Comment- that the "adulterated" scope does not align with the FDCA scope of "Adulterated Foods.")
74. **Economically Motivated Adulteration (FSMA-IA):** Comment - this was not defined in the final rule and refers to the FSMA-PC rule.
75. **Economically Motivated Adulteration (FSMA-PC):** Comment - this is not defined in the FSMA-PC final rule but it was made clear by FDA that all "economically motivated" acts that lead to an agent that creates a health hazard are within the scope.
76. **Economically Motivated Adulteration (PCHF-QI):** See Economically Motivated Food Safety Hazard
77. **Economically Motivated Food Safety Hazard (EMFSH):** Comment a new term introduced in the FSMA Preventive Controls for Human Foods Qualified Individual Training (PCHF-QI) that is not explicitly defined.
78. **Economically motivated food safety hazard (PCHF-QI):** Undefined
79. **Economically Motivated Hazard (PCHF-QI):** Undefined. See Economically Motivated Food Safety Hazard
80. **Economically-Motivated Adulteration (EMA-FPDI/NCFPD):** "EMA is intentional adulteration of food by intelligent perpetrators actively trying to deceive consumers, defraud customers and avoid detection by quality assurance and regulatory systems. FPDI categorizes EMA into eight adulteration methods: dilution, substitution, artificial enhancement, mislabeling, trans-shipment and origin masking, counterfeiting, theft and resale, and intentional distribution of contaminated product." (Food Safety Magazine, December 2017); "EMA is often referred to as "food fraud," and FPDI uses the two terms interchangeably" (website FAQ).
81. **Economically-Motivated Adulteration (EMA-USP):** "More generally referred to as "food fraud," EMA is the fraudulent addition of non-authentic substances or removal or replacement of authentic

substances without the purchaser's knowledge for the economic gain of the seller. An EMA-related adulterant (which is the focus of this guide [USP Food Fraud Mitigation Guide]) is an adulterant added to food by a supplier for economic gain.”

82. **Event (USG):** “...is essentially something that occurs (ISO 2002, CNSSI 2010, Merriam-Webster 2004). There is no evaluation yet of the change in the consequence.” (Spink, Ortega, Chen & Wu, 2017)
83. **Food Assurance (Elliott Review):** “... is normally provided by schemes which provide consumers and businesses with guarantees that food has been produced to particular standards. These schemes are mainly voluntary arrangements although many food businesses make certification in an assurance scheme a specification requirement for their suppliers. Examples of assurance schemes are the Red Tractor, which covers production standards, and the British Egg Industry Council lion logo for eggs. These schemes must ensure that communications and claims about them are accurate.”
84. **Food Authenticity (CODEX, DRAFT 11/2017):** Food with undisputed origin and genuine in its nature, substance and quality including nutritional values and food preferences expected by the consumer [purchaser] or a food standard or claimed by the food business operator (Under review)
85. **Food Authenticity (Elliott Review):** “... is about ensuring that food offered for sale or sold is of the nature, substance and quality expected by the purchaser (Section 14 Food Safety Act 1990). Authenticity can be a particular issue for faith groups or consumers with particular food preferences who do not want to purchase products containing certain ingredients.” (Comment – “authenticity” is not specifically used in the Food Safety Act 1990 Section 14 on consumer protection; “authenticated” is referred to later in the act regarding document confirmation).
86. **Food Authenticity (Webster’s Dictionary) –** Food and “genuine, real”, “the general quality of being authentic or of established authority for truth and correctness, 2. Genuineness; the quality of being genuine or not corrupted from the original.”
87. **Food Crime (Elliott Review):** “Food fraud becomes **food crime** when it no longer involves a few random acts by ‘rogues’ within the food industry but becomes an organised activity perpetrated by groups who knowingly set out to deceive and or injure those purchasing a food product.” (Comment- original definition created for this report.)
88. **Food Crime (Summary):** “...this has two commons definitions of (1) incidents involving food that is a violation of a criminal statute (Manning and Soon 2016) and (2) Food Fraud incidents that are conducted on a larger scale (FBI 2012, UK NFCU 2016).” (Huisman, VanRuth, et. al. 2017)
89. **Food Defence (food defense) (GFSI Position Paper, 2014, in text):** which protects against tampering with intent to harm
90. **Food defence (GFSI v7.2, Glossary):** The process to ensure the security of food and drink from all forms of intentional malicious attack including ideologically motivated attack leading to contamination.
91. **Food Defence / Food Defense (GFSI):** The process to ensure the security of food and drink and their supply chains from all forms of intentional malicious attack including ideologically motivated attack leading to contamination or supply failure.
92. **Food defence plan (GFSI v7.2, in text):** The standard shall require that the organisation has a documented plan in place that specifies the measures the organisation has implemented to mitigate the public health risks from any identified food defence threats.
93. **Food defence threat assessment (GFSI v7.2, in text):** The standard shall require that the organisation have a documented food defence threat assessment procedure in place to identify potential threats and prioritise food defence measures
94. **Food Defense (FDA, Pre-FSMA, 2009):** “the efforts to prevent intentional contamination of food products (Human intervention as the source of contamination)”

95. **Food Defense (food defense) (IFS):** The protection of food products from intentional contamination or adulteration by biological, chemical, physical, or radiological agents for the purpose of causing harm.
96. **Food Defense (FSMA-IA, 2011):** Food Defense as defined by the IA rule only includes “wide scale [human] health harm” – or essentially the health hazards from food terrorism.
97. **Food Defense (FSSC):** The process to prevent food and feed supply chains from all forms of ideologically or behaviorally motivated, intentional adulteration that might impact consumer health.
98. **Food Defense (Summary):** is defined as intentional attacks on the food supply chain with the intent to harm. This is broader than “Food Defense (FSMA-IA).”
99. **Food Defense (SQF):** As defined by the US Food and Drug administration, the efforts to prevent intentional food contamination by biological, physical, chemical or radiological hazards that are not reasonably likely to occur in the food supply.
100. **Food Defense (Summary):** Comment - is defined as intentional attacks on the food supply chain
101. **Food Defense (USP referring to GCC/SCC referring to FDA FD):** “ Food defense is the protection of food products from intentional contamination or adulteration where there is an intent to cause public health harm and/or economic disruption.<sup>4</sup>” (citing: Food Defense Fact Sheet, June2016, Food & Agriculture Sector Councils, which cites the main FDA Food Defense website that narrows to “wide-scale public health harm”) (USP non-Targeted Methods report)
102. **Food Fraud (CODEX EWG, DRAFT 11/2017): Comment** - under review, currently defined as all types of fraud and all products; “Any deliberate action taken by businesses or individuals that deceive other businesses and/or individuals in terms of misrepresenting food, food ingredients or food packaging that brings about a financial gain. The main types of fraud include: adulteration (including substitution, dilution, concealment, unapproved enhancement), , tampering, simulation, counterfeiting, and misrepresentation of food, food ingredients or food packaging, product overrun, theft, diversion, and false or misleading statements made about a product.”
103. **Food Fraud (Elliott Review, in glossary):** “... is defined by the Food Standards Agency as: deliberately placing food on the market, for financial gain, with the intention of deceiving the consumer. Although there are many kinds of food fraud, the two main types are: Sale of food which is unfit and potentially harmful, such as: -recycling of animal by-products back into the food chain, - packing and selling of beef and poultry with an unknown origin, -knowingly selling goods which are past their 'use by' date. Deliberate mis-description of food such as: -products substituted with a cheaper alternative, for example farmed salmon sold as wild, and Basmati rice adulterated with cheaper varieties. -making false statements about the source of ingredients, i.e. their geographic, plant or animal origin. Food fraud may also involve the sale of meat from animals that have been stolen and/or illegally slaughtered, as well as wild game animals like deer that may have been poached.”
104. **Food Fraud (Elliott Review, in text):** “...encompasses deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product for economic gain. The types of fraud include adulteration, tampering, product overrun, theft, diversion, simulation, and counterfeiting<sup>3</sup>.” (Note: “3” on Page 12, cites Spink & Moyer, 2011)
105. **Food Fraud (GFSI Position Paper 2014) (GFSI):** “...is deception of consumers using food products, ingredients and packaging for economic gain and includes substitution, unapproved enhancements, misbranding, counterfeiting, stolen goods or others.” (Note: The GFSI Position Paper on Food Fraud is a detailed and expanded explanation of the intent of the GFSI Board of Directors for the GFSI Food Safety Management System.)

106. **Food Fraud (GFSI Position Paper, 2014, in text):** Food fraud, including the subcategory of economically motivated adulteration, is of growing concern. It is deception of consumers using food products, ingredients and packaging for economic gain and includes substitution, unapproved enhancements, misbranding, counterfeiting, stolen goods or others.
107. **Food Fraud (GFSI, Version 7, Glossary, 2017) (GFSI):** “A collective term encompassing the deliberate and intentional substitution, addition, tampering or misrepresentation of food, food ingredients or food packaging, labeling, product information or false or misleading statements made about a product for economic gain that could impact consumer health.”
108. **Food Fraud (IFS):** The deliberate and intentional substitution, mislabeling, adulteration or counterfeiting of food, raw materials, ingredients or packaging placed upon the market for economic gain. This definition also applies to outsourced processes.
109. **Food Fraud (SQF):** As defined by Michigan State University, a collective term used to encompass the deliberate and intentional substitution, addition, tampering, or misrepresentation of food, food ingredients, or food packaging; or false or misleading statements made about a product, for economic gain.
110. **Food Fraud (Summary):** Comment - Illegal deception for economic gain using food, includes all types of fraud (e.g., not only adulterant-substances and counterfeits to include stolen and some diverted goods) and all products (e.g., raw materials and finished goods). (Journal of Food Science, Elliott Review, FSA UK, Book on Food Safety in China, ISO, CODEX CCFICS EWG, GFSI, etc.)
111. **Food Fraud Hazard (NA):** no specific definition
112. **Food Fraud Mitigation Plan (GFSI v7.2, in text):** The standard shall require that the organization has a documented plan in place that specifies the measures the organization has implemented to mitigate the public health risks from the identified food fraud vulnerabilities.
113. **Food Fraud Mitigation Plan (IFS):** A process that defines the requirements on when, where and how to mitigate fraudulent activities, identified by a food fraud vulnerability assessment. The resulting plan will define the measures and controls that are required to be in place to effectively mitigate the identified risks. The control measures required to be put into place may vary according to the nature of – the food fraud (substitution, mislabelling, adulteration or counterfeiting) – detection methodology – type of surveillance (inspection, audit, analytical, product certification) – source of the raw material, ingredient and packaging.
114. **Food Fraud Prevention (FSSC):** The process to prevent food and feed supply chains from all forms of economically motivated, intentional adulteration that might impact consumer health.
115. **Food Fraud Risk:** “...is the combined likelihood and consequence – that considers the threat and vulnerability – of food fraud. This is a function of the vulnerability and threat; e.g., an estimate of the likelihood and consequence of milk diluted with water, sold to a deceived customer. Following these definitions, it is important to note that there could be a vulnerability assessment, separate from a risk assessment, for food fraud or for food defense (food safety risk is traditionally addressed in a Hazard Analysis and Critical Control Point HACCP plan). (Spink, Ortega, Chen & Wu, 2017))
116. **Food Fraud Threat:** “...is the cause of a food fraud event; e.g., a criminal could dilute milk with water and then sell to a deceived customer. (Spink, Ortega, Chen & Wu, 2017)
117. **Food fraud vulnerability (GFSI v7.2, Glossary):** Susceptibility or exposure to a food fraud risk, which is regarded as a gap or deficiency that could place consumer health at risk if not addressed.
118. **Food Fraud Vulnerability (GFSI, Version 7, glossary, 2017) (GFSI):** “Susceptibility or exposure to a food fraud risk, which is regarded as a gap or deficiency that could place consumer health at risk if not addressed.”
119. **Food Fraud Vulnerability Assessment (GFSI Position Paper, 2014, Glossary):** The standard shall require that the organisation have a documented food fraud vulnerability assessment in place to

identify potential vulnerability and prioritise food fraud vulnerability control measures. From the text: “in which information is collected at the appropriate points along the supply chain (including raw materials, ingredients, products, packaging) and evaluated to identify and prioritise significant vulnerabilities for food fraud.”

120. **Food fraud vulnerability assessment (GFSI v7.2, in text):** 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.
121. **Food Fraud Vulnerability Assessment (IFS):** A systematic documented form of risk assessment to identify the risk of possible food fraud activity within the supply chain (including all raw materials, ingredients, food, packaging and outsourced processes). The method of risk assessment may vary from company to company, ... .”
122. **Food Fraud Vulnerability Control Plan – Scope (GFSI Position Paper, 2014, Glossary):** This plan shall cover the relevant GFSI scope and shall be supported by the organisation’s Food Safety Management System.
123. **Food Fraud Vulnerability Control Plan (GFSI Position Paper, 2014, Glossary):** The standard shall require that the organisation have a documented plan in place that specifies the control measures the organisation has implemented to minimize the public health risks from the identified food fraud vulnerabilities.
124. **Food Fraud Vulnerability:** “...is the susceptibility of a system to food fraud (e.g., milk is not tested for adulterants such as water). (Spink, Ortega, Chen & Wu, 2017)
125. **Food Fraud/ Product Fraud (ISO TC292):** Summary: deception utilizing material goods for economic gain or avoiding a loss; “wrongful or criminal deception utilizing material goods for financial or personal gain, Note 1 to entry: Fraud means wrongful or criminal deception intended to result in financial or personal gain creating social or economic harm, Note 2 to entry: Products include electronic media carried on material goods, Note 3 to entry: Fraud related to digitally transmitted electronic media needs to be considered separately.” (ISO/DIS 22380)
126. **Food Integrity (CODEX EWG, DRAFT 11/2017):** Comment – under review; “Food meets acceptable levels of specifications defined as quality including nutritional values, safety and authenticity including label claims.”
127. **Food Integrity (EC, FIP, 1):** “the state of being whole, entire, or undiminished or in perfect condition.” And “... can be seen as ensuring that food which is offered for sale or sold is not only safe and of the nature, substance and quality expected by the purchaser but also captures other aspects of food production, such as the way it has been sourced, procured and distributed and being honest about those elements to consumers.”
128. **Food Integrity (EC, FIP, 2):** “the state of being whole, entire, or undiminished or in perfect condition”. “Providing assurance to consumers and other stakeholders about the safety, authenticity and quality of European food (integrity) is of prime importance in adding value to the European Agri-food economy. The integrity of European foods is under constant threat from fraudulently labelled imitations that try to exploit that added value.” (Comment- this is a definition expanded from the first “EC, FIP, 1” definition.)
129. **Food integrity (Elliott Review):** “... can be seen as ensuring that food which is offered for sale or sold is not only safe and of the nature, substance and quality expected by the purchaser but also captures other aspects of food production, such as the way it has been sourced, procured and distributed and being honest about those elements to consumers.” (See Food Integrity, Eight Pillars).
130. **Food Integrity (Webster’s Dictionary):** Comment- based on combing the definition of both terms: “Food” and “adherence to a code of values, soundness, completeness.”

131. **Food Integrity, The Eight Pillars (Elliott Review):** “The Eight Pillars of Food Integrity” which are: (1) The result is a robust system that puts the needs of consumers before all others; (2) adopts a zero tolerance approach to food crime; (3) invests in intelligence gathering and sharing; (4) supports resilient laboratory services that use standardised, validated methodologies; (5) improves the efficiency and quality of audits and more actively investigates and tackles food crime; (6) acknowledges the key role Government has to play in supporting industry; and (7) reinforces the need for strong leadership and effective crisis management. (Comment- see other Elliott Review definitions including Food Integrity and Food Authenticity.)
132. **Food Quality (Codex):** “Quality includes all the attributes that influence a product’s value to the consumer. This includes negative attributes such as spoilage, contamination with filth, discoloration, off-odours and positive attributes such as the origin, colour, flavour, texture and processing method of the food” (FAO 2017).
133. **Food Safety (Codex):** “The assurance that food will not cause harm to the consumer when prepared and/or eaten according to its intended use” (FAO 2017) (See Codex Acceptable Levels of Protection ALOP).
134. **Food Safety (GFSI):** “A concept that food will not cause harm to the consumer when it is prepared and / or eaten according to its intended use.”
135. **Food Safety Management System (GFSI v7.2, Glossary):** A series of defined rules, policies and procedures which are intended to ensure the safe supply of food and protect public health.
136. **Food Safety Scheme (GFSI):** A systematic plan which has been developed, implemented, and maintained for the scope of food safety. This shall consist of a standard and food safety system in relation to specified processes or a food safety service to which the same particular plan applies. The food safety scheme should contain at least the following items: a standard, clearly defined scope, and a food safety system
137. **Food Safety Standard (GFSI):** A series of defined requirements developed to ensure the safety of food when effectively implemented.
138. **Food Safety System (GFSI v7.2, Glossary):** A series of defined rules, policies and procedures which are intended to ensure the safe supply of food and protect public health.
139. **Food Safety System (GFSI):** A series of defined rules, policies and procedures which are intended to ensure the safe supply of food and protect public health.
140. **Food Security (WHO):** the access to safe, continuous, nutritious, and economic supply of food (WHO 2009)
141. **Food Standards (Elliott Review):** “...covers the requirement that food must be correctly and accurately labelled, that it contains legal ingredients and that any claims made are truthful. Food standards legislation sets out specific requirements for the labelling, composition and, where appropriate, safety parameters for specific high value foodstuffs which are potentially at risk of being misleadingly substituted with lower quality alternatives.”
142. **Food Supply Chain (GFSI v7.2, Glossary):** A defined sequence of activities in relation to the provision of food and feed from primary production to consumption. In relation to GFSI this involves activities associated with the Food and Feed Industries.
143. **Food Terrorism (Bio-terrorism):** See bio-terrorism.
144. **Food Terrorism (WHO):** “an act or threat of deliberate contamination of food for human consumption with chemical, biological or radionuclear agents for the purpose of causing injury or death to civilian populations and/or disrupting social, economic or political stability” (WHO 2002).”(Comment- Since the definition was published in 2002 the WHO website has two mentions of the use of the term.)

145. **Fraud (Black's Law):** 1. A knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment. Fraud is usually a tort but in some cases (especially when the conduct is willful) it may be a crime. <– also termed “intentional fraud.”> 2. A misrepresentation made recklessly without belief in its truth to induce another person to act. 3. A tort arising from a knowing misrepresentation, concealment or material fact, or reckless misrepresentation made to induce another to act to his or her detriment. 4. Unconscionable dealing; especially, in contract law, the unfair use of the power arising out of the parties’ relative positions and resulting in an unconscionable bargain.
146. **Fraud, Criminal (Black's Law):** fraud that has been made illegal by statute and that subjects the offender to criminal penalties such as fines and imprisonment. An example is the willful evasion of taxes accomplished by filing a fraudulent tax return.
147. **Fraud, Extrinsic (Black's Law):** 1. Deception that is collateral to the issues being considered in the case; intentional misrepresentation or deceptive behavior outside the transaction itself (whether a contract or a lawsuit), depriving one party of informed consent or full participation. For example, a person might engage in extrinsic fraud by convincing a litigant not to hire counsel or answer by dishonestly saying the matter will not be pursued. – Also termed “collateral fraud.” 2. Deception that prevents a person from knowing about or asserting certain rights.
148. **Fraud, Intrinsic (Black's Law):** deception that pertains to an issue involved in an original action. Examples include the use of fabricated evidence, a false return of service, perjured testimony, and false receipts or other commercial documents.
149. **Fraude (Black's Law):** [French] Civil law. Fraud committed in performing of a contract. (Comment- this is an example of the challenge of translating terms since the French word “fraude” has a different definition than the English word with similar spelling “fraud.”)
150. **Fraudfeasor (Black's Law):** A person who has committed fraud. – Also termed “defrauder.”
151. **Fraudulent Act (Black's Law):** Conduct involving bad faith, dishonesty, a lack of integrity, or moral turpitude. – Also termed “dishonest act;” “fraudulent or dishonest act.”
152. **Frequency (DHS Lexicon 2017):** number of occurrences of an event per defined period of time or number of trials
153. **FSMA Preventive Controls for Human Foods Qualified Individual Training (PCHF-QI):** the officially recognized FSMA Qualified Individual training managed by the Food Safety Preventive Controls Alliance (FSPCA). FSMA-PC requires that a PCHF-QI develop and manage the Preventive Controls aspect of FSMA.
154. **Gray Market (Black's law):** A market in which the seller uses legal but sometimes unethical methods to avoid a manufacturer’s distribution chain and thereby sell goods (especially imported goods) at prices lower than those envisioned by the manufacturer. See “Parallel Imports.”
155. **Gray-Market Goods (Black's law):** See “Parallel Imports.”
156. **HACCP - Hazard Analysis and Critical Control Point plan (GFSI):** Hazard Analysis and Critical Control Point, A system which identifies, evaluates controls and monitors hazards relating to food safety and specified by Codex Alimentarius or the National Advisory Committee on Microbiological Criteria for Foods.
157. **HACCP Hazard Analysis and Critical Control Point (GFSI v7.2, Glossary):** A system which identifies, evaluates, controls, and monitors hazards relating to food safety and specified by Codex Alimentarius or the National Advisory Committee on Microbiological Criteria for Foods.
158. **Hazard (DHS Lexicon 2017):** natural or man-made source or cause of harm or difficulty
159. **Hazard (EU178/2002):** means a biological, chemical or physical agent in, or condition of, food or feed with the potential to cause an adverse health effect;

160. **Hazard (FDA, FSMA, CFR):** Hazard means any biological, chemical (including radiological), or physical agent that has the potential to cause illness or injury. (21CFR117.3)
161. **Hazard (FSMA-PC/ FDA):** A hazard is an agent that is reasonably likely to cause illness or injury in the absence of its control (§ 117.3); The facility must consider factors associated with risk (i.e., the severity of the illness or injury if the hazard were to occur and the probability that the hazard will occur in the absence of preventive controls) in evaluating whether any potential hazard is a hazard requiring a preventive control (§ 117.130(c)).
162. **Hazard (USG):** "...is an event that has not occurred and could cause harm if not addressed (ISO 2007b, PAS 96 2014, NRC 1996, 21 CFR, Merriam-Webster 2004) – this includes damaging potential (ISO 2007b). For food this is often applied to unintentional events that have potential to harm." (Spink, Ortega, Chen & Wu, 2017)
163. **Hazard that requires a preventive control (FDA, FSMA, USC): Section 218, (C )** Preventive Controls. —The owner, operator, or agent in charge of a facility shall identify and implement preventive controls, including at critical control points, if any, to provide assurances that— '(1) hazards identified in the hazard analysis conducted under subsection (b)(1) will be significantly minimized or prevented;
164. **Identity (Black's law):** In the law of evidence. Sameness; the fact that a subject, person, or thing before a court is the same as it is represented, claimed, or charged to be.
165. **Illegal (Black's law):** Not authorized by law; Illicit; unlawful; contrary to law. Sometimes this term means merely that which lacks authority of or support from law; but more frequently it imports a violation. Illicit (Black's law): Not permitted or allowed; prohibited ; unlawful; as an illicit trade
166. **Illicit trade (Black's law):** This term applies to any trade with a country that has been forbidden by a law.
167. **Imitation (Black's law):** The making of one thing in the similitude or likeness of another; as, counterfeit coin is said to be made "in imitation" of the genuine. An imitation of a trade-mark is that which so far resembles the genuine trade-mark as to be likely to induce the belief that it is genuine, whether by the use of words or letters similar in appearance or in sound, or by any sign, device, or other means. (See simulation)
168. **Import (Black's law):** Importations; goods or other property imported or brought into the country from a foreign country. Also: Importation: The act of bringing goods and merchandise into a country from a foreign country.
169. **Incident (Black's law):** This word, used as a noun, denotes anything which inseparably belongs to, or is connected with, or inherent in, another thing, called the "principal." In this sense, a court-baron is incident to a manor. Also, less strictly, it denotes anything which is usually connected with another, or connected for some purposes, though not inseparably.
170. **Incident (Summary):** "A type of event... that has occurred and evaluated and that could have a negative consequence (DHS 2008, ANSI 2009, CNSSI 2010). " (Spink, Ortega, Chen & Wu, 2017)
171. **Infringement, Criminal (Black's law):** The statutory criminal offense of either (1) willfully infringing a copyright to obtain a commercial advantage or financial gain, or (2) trafficking in goods or services that bears a counterfeit mark.
172. **Infringement, Innocent (Black's Law):** The act of violating an intellectual-property right without knowledge or awareness that the act constitutes infringement.
173. **Infringement, Intellectual property (Black's law):** An act that interferes with one of the exclusive rights of a patent, copyright, or trademark owner.

174. **Infringement, Trademark (Black's Law):** The unauthorized use of a trademark – or of a confusingly similar name, word, symbol, or any combination of these – in connection with the same or related goods or services and in a manner about the source of goods or services.
175. **Infringement, Vicarious (Black's law):** A person's liability for an infringing act of someone else, even though the person has not directly committed an act of infringement.
176. **Ingredient (GFSI v7.2, Glossary):** A component of a food, feed or packaging that has undergone processing.
177. **Ingredient (GFSI):** A component of a food, feed or packaging that has undergone processing
178. **Inspection (Black's law):** The examination or testing of food, fluids, or other articles made subject by law to such examination, to ascertain their fitness for use or commerce. ... Also the examination by a private person of public records and documents; or of the books and papers of his opponent in an action, for the purpose of better preparing his own case for trial.
179. **Integrity (Black's law):** As occasionally used in statutes prescribing the qualifications of public officers, trustees, etc., this term means soundness of moral principle and character, as shown by one person dealing with others in the making and performance of contracts, and fidelity and honesty in the discharge of trusts; it is synonymous with "probity," "honesty," and "uprightness."
180. **Integrity, Product (ISO TC292):** Summary: The statement of the unimpaired, unaltered, and unmodified condition of the item with safekeeping of the accuracy, completeness of the claim; "property that data has not been modified or deleted in an unauthorized and undetected manner" (ISO/IEC 19790:2012), "probability of a system satisfactorily performing the required function under all the stated conditions within a stated period"( ISO 10418:2003), "state of an artefact that has not been altered, deliberately or accidentally" (ISO 18308:2011), "property of safeguarding the accuracy and completeness of assets" (ISO 28002:2011), "the property of the unimpaired condition of the authentication element, the associated data, the information or the elements and the means for processing them" (ISO 28002:2011), "attribute of a document whose content is completed and unaltered", "physical acceptability of a [product] to meet the specification designated by the [product] supplier"; [Comment- Note: Usually presented with an evaluation of a meeting requirements (e.g., safety integrity level); Note: only one result mentioned ethical or personal value, e.g., "adherence to ethical principles" (ISO 20121:2012)].
181. **Integrity Program (IFS):** Program implemented by IFS in order to: – Monitor, as preventive actions performance of auditors and certification bodies as well as audited companies, – Manage, as corrective actions, any complaints addressed to IFS.
182. **Intellectual Property (Black's law):** 1. a category of intangible rights protecting commercially valuable products of the human intellect. The category comprises primarily trademark, copyright, and patent rights, but also includes trade-secret rights, publicity rights, moral rights, and rights against unfair competition. 2. A commercially valuable product of the human intellect, in a concrete or abstract form, such as a copyrightable work, a protected trademark, a patentable invention, or a trade secret.
183. **Intentional (Black's law):** This means a thing is done with reason and purpose.
184. **Intentional Adulteration (Adapted from Black's law):** Comment- this combines the definitions for each term: "with reason and purpose," "mixing up with food or drink intended to be sold other matters of an inferior quality, and usually of a more or less deleterious quality."
185. **Intentional Adulteration (FDA, FSMA, IA Rule):** The purpose of this rule is to protect food from intentional acts of adulteration where there is an intent to cause wide scale public health harm. ...and that the food is at high risk of intentional adulteration caused by acts of terrorism under section 420 of the FD&C Act.
186. **Intentional Adulteration (FDA, FSMA, USC):** no direct definition or glossary term

187. **Intentional Adulteration (FDCA 1938):** the words and phrase defined by the US Food, Drug & Cosmetics Act of 1938, specifically the Adulterated Foods section
188. **Intentional Adulteration (FSMA):** no direct definition or glossary term; general text includes “...is wide-scale human health harm scope in the FSMA-IA rule; Section 418, (b) Hazard Analysis. (2) identify and evaluate hazards that may be intentionally introduced, including by acts of terrorism;”
189. **Intentional Adulteration (Summary):** “... any adulterant-substance intentionally added to the food or ingredient for any reason. (Comment- when applied to Food Defense, **intentional contamination** is a misnomer if using the Codex definition of contaminant (unintentional excess substance that is common in the processing or manufacturing) (Codex Alimentarius 2014).”)
190. **Intentional Adulteration, Protection Against (FDA, FSMA, USC):** ““(1) IN GENERAL.—The Secretary shall— “(A) conduct a vulnerability assessment of the food system, including by consideration of the Department of Homeland Security biological, chemical, radiological, or other terrorism risk assessments; “(B) consider the best available understanding of uncertainties, risks, costs, and benefits associated with guarding against intentional adulteration of food at vulnerable points; and “(C) determine the types of science-based mitigation strategies or measures that are necessary to protect against the intentional adulteration of food.
191. **Intrinsic authentication element (ISO TC292):** authentication element which is inherent to the material good, e.g., an attribute of a food such as a DNA test, ionization of water, etc. (ISO 2931:2012)
192. **ISO/IEC 17011:2004 (GFSI):** An International Standards Organization recognized and final standard 17011 on “Conformity assessment -- General Requirements” for accreditation bodies accrediting conformity assessment bodies that was last updated in 2004 (ISO 2004)
193. **Known or Reasonably Foreseeable Hazard FDA, FSMA, PC rule):** “We [FDA] proposed to define the term “known or reasonably foreseeable hazard” to mean a biological, chemical (including radiological), or physical hazard that has the potential to be associated with the facility or the food.”
194. **Law (Black’s Law):** 1. Regime that orders human activities and relations through systematic application of the force of politically organized society, or through social pressure, backed by force, in such a society; the legal system. 2. The aggregate legislation, judicial precedents, and accepted legal principles; the body of authoritative ground of judicial or administrative action, 3. The set of rules or principles dealing with a specific area of a legal system <copyright law>, 4. The judicial or administrative process; legal action and proceedings, 5. A statute <Congress passed a law>.
195. **Law, Statutory (Black’s Law):** the body of law derives from statutes rather than from constitutions or judicial decisions. – also termed statute law; legislative law; ordinary law. (See statutes)
196. **Liability (Black’s law):** 1. The quality or state of being legally obligated or accountable; legal responsibility to another or to society, enforceable by civil remedy or criminal punishment. 2. A financial or pecuniary obligation; debt.
197. **Liability, Civil (Black’s law):** 1. liability imposed under the civil, as opposed to criminal, law. 2. The state of being legally obligated for civil damages
198. **Liability, Contingent (Black’s law):** A liability that will occur only if a specific event happens; a liability that depends on the occurrence of a future and uncertain event.
199. **Liability, Strict (Black’s law):** Liability that does not depend on actual negligence or intent to harm, but that is based on the breach of an absolute duty to make something safe strict liability most often applies either to ultra-hazardous activities or in products-liability cases. – also termed “absolute liability”; “liability without fault”.) (See Safe Food)

200. **Liability, Vicarious (Black's law):** Liability that a supervisory party (such as an employer) bears for the actionable conduct of a subordinate or association (such as an employee) based on the relationship between the two parties.
201. **Likelihood (DHS Lexicon 2017):** "chance of something happening, whether defined, measured or estimated objectively or subjectively, or in terms of general descriptors (such as rare, unlikely, likely, almost certain), frequencies, or probabilities."
202. **Likelihood (ISO 31000):** "chance of something happening; NOTE 1 In risk management terminology, the word "likelihood" is used to refer to the chance of something happening, whether defined, measured or determined objectively or subjectively, qualitatively or quantitatively, and described using general terms or mathematically (such as a probability or a frequency over a given time period). NOTE 2 the English term "likelihood" does not have a direct equivalent in some languages; instead, the equivalent of the term "probability" is often used. However, in English, "probability" is often narrowly interpreted as a mathematical term. Therefore, in risk management terminology, "likelihood" is used with the intent that it should have the same broad interpretation as the term "probability" has in many languages other than English." [ISO Guide 73:2009, definition 3.6.1.1]
203. **Market (Black's law):** 1. a place of commercial activity in which goods and services are bought and sold. 2. A geographic area or demographic segment considered as a place of demand for particular goods or services; especially prospective purchasers of goods.
204. **Misbranded Foods (FD&C Act, Ostroff Summary, 2017):** "offered for sale under the name of another food", "labelling is false or misleading", and "ingredient labeling."
205. **Misbranded Foods (FD&C Act, summary):** Comment- Generally a false or misleading label. Stolen goods sold in commerce would be "Misbranded" or "Adulterated" (handling conditions cannot be confirmed). Other examples includes counterfeit labels, up-labeling (label designation a higher quality product than is in the package), incorrect manufacturers, incorrect country of origin.
206. **Mitigation (Summary):** "...is intended to reduce the consequence of the event (ISO 2007a, ISO 2007, ISO 2007b, DHS 2013, Merriam-Webster 2004). This assumes the hazard event will occur so the goal is to mitigate or reduce the negative consequence. This focuses on reducing the risk that cannot be eliminated. " (Spink, Ortega, Chen & Wu, 2017).
207. **Packaging (GFSI v7.2, Glossary):** Material or package which provides protection, tampering resistance, and special physical, chemical, or biological needs to maintain food safety.
208. **Parallel Imports (Black's law):** Goods bearing valid trademarks that are manufactured abroad and imported into the US to compete with domestically manufactured goods bearing the same valid trademarks. Domestic parties commonly complain that parallel imports compete unfairly in the US market. But US trademark law does not prohibit the sale of most parallel imports. –Also termed "gray-market goods". See "Gray Market" under "Market".
209. **Patent (Black's Law):** 1. The governmental grant of a right, privilege, or authority. 2. The official document so granting.
210. **Patent, Design (Black's law):** A patent granted for a new, original, and ornamental design for an article of manufacture; a patent that protects a products appearance or non-functional aspects. Design patents – which, unlike utility patents, have a term of only 14 years from the date the patent is granted – are similar to copyrights.
211. **Patent, Utility (Black's Law):** A patent granted for one of the following types of inventions: a process, a machine, a manufacture, or a composition of matter (such as a new chemical). Utility patents are the most commonly issued patent.

212. **Prevention (Summary):** "...is intended to reduce or eliminate the likelihood of the event occurring (ISO 2007, ISO 2007a, ISO 2007b, ISO 2008, Merriam-Webster 2004). This focuses on identifying and eliminating or reducing vulnerability." (Spink, Ortega, Chen & Wu, 2017)
213. **Preventive controls (FDA, FSMA, CFR):** means those risk-based, reasonably appropriate procedures, practices, and processes that a person knowledgeable about the safe manufacturing, processing, packing, or holding of food would employ to significantly minimize or prevent the hazards identified under the hazard analysis that are consistent with the current scientific understanding of safe food manufacturing, processing, packing, or holding at the time of the analysis.
214. **Preventive Controls (FDA, FSMA, USC):** The term 'preventive controls' means those risk-based, reasonably appropriate procedures, practices, and processes that a person knowledgeable about the safe manufacturing, processing, packing, or holding of food would employ to significantly minimize or prevent the hazards identified under the hazard analysis conducted under subsection (b) and that are consistent with the current scientific understanding of safe food manufacturing, processing, packing, or holding at the time of the analysis.
215. **Preventive controls qualified individual (FDA, FSMA, CFR):** means a qualified individual who has successfully completed training in the development and application of risk-based preventive controls at least equivalent to that received under a standardized curriculum recognized as adequate by FDA or is otherwise qualified through job experience to develop and apply a food safety system.
216. **Probability (ISO 31000):** Not defined, but under likelihood noted "NOTE 2 The English term "likelihood" does not have a direct equivalent in some languages; instead, the equivalent of the term "probability" is often used. However, in English, "probability" is often narrowly interpreted as a mathematical term. Therefore, in risk management terminology, "likelihood" is used with the intent that it should have the same broad interpretation as the term "probability" has in many languages other than English. [ISO Guide 73:2009, definition 3.6.1.1]"
217. **Promisor (Black's law):** One who makes a promise; especially, a party who undertakes a contractual obligation.
218. **Prudent Person (Black's law):** See "Reasonable person." (Comment- this term is used in US food laws.)
219. **Purity (SQF):** The absence of contaminants that could cause a food safety hazard.
220. **Qualified Auditor (FDA, FSMA, CFR):** means a person who is a qualified individual as defined in this part and has technical expertise obtained through education, training, or experience (or a combination thereof) necessary to perform the auditing function as required by 117.180(c)
221. **Qualified Individual (FDA, FSMA, CFR):** means a person who has the education, training, or experience (or a combination thereof) necessary to manufacture, process, pack, or hold clean and safe food as appropriate to the individual's assigned duties. A qualified individual may be, but is not required to be, an employee of the establishment.
222. **Raw material (GFSI):** A component of a food, feed or packaging that has not undergone processing
223. **Reasonable Person (Black's Law):** 1. A hypothetical person used as a legal standard, especially to determine whether someone acted with negligence; specifically, a person who exercises the degree of attention, knowledge, intelligence, and judgment that society requires of its members for the protection of their own and others interests. The reasonable person acts sensibly, does things without serious delay, and takes proper but not excessive precautions. –Also termed "reasonable man"; "prudent person"; "ordinarily prudent person"; "reasonably prudent person"; "highly prudent person". 2. Archaic. A human being.

224. **Regulation (Black's Law):** 1. the act or process of controlling by rule or restriction. 1. Bylaw. 3. A rule or order, having legal force, usually issued by an administrative agency. – also termed “agency regulation”; “Subordinate regulation”; “delegated legislation.”
225. **Risk (DHS Lexicon 2017):** “potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences [CTRA: Risk = frequency \* consequence]”
226. **Risk (EU178/2002 ):** means a function of the probability of an adverse health effect and the severity of that effect, consequential to a hazard;
227. **Risk (Summary):** “...is an uncertainty of an outcome that is assessed in terms of likelihood and consequence (ISO 2007a, NIST 2002, CNSSI 2010, DHS 2013). Often the consequence is sub-divided to other factors such as onset, severity, or other. Risk is a based on factors of the probability of the threat and the susceptibility from vulnerability (NRC 2009). In other applications it is an unwanted outcome (DHS 2008, Codex Alimentarius 2014, 21 CFR 50 (A) (.3)(k), Merriam-Webster 2004).” (Spink, Ortega, Chen & Wu, 2017)
228. **Risk Based Programme (GFSI):** A documented programme developed by a competent person(s) based on risk assessment principles.
229. **Risk Profile (GFSI v7.2, Glossary):** The result of the process of risk evaluation which has been undertaken by a competent authority, who has considered all appropriate criteria.
230. **Safe food (Elliott Review):** “...is defined under EU food law as food which is not injurious to health or unfit for human consumption (EU Regulation 178/2002 General Food Law). A food can become injurious to health by: Adding an article or substance to it; Using an article or substance as an ingredient in its preparation; Abstracting (which means “taking away”) any constituent from it; or Subjecting it to any other process or treatment. The Regulation prohibits food being placed on the market if it is unsafe. Unsafe food must be withdrawn from sale or recalled from consumers if it has already been sold.” (See Safe Food (EU178/2002)
231. **Safe food (GFSI v7.2, Glossary):** Food which not injurious to health or unfit for human consumption.
232. **Safe food (GFSI):** “Food which not injurious to health or unfit for human consumption”
233. **Safe Food/ Unsafe Food (Food safety requirements) (EU178/2002):** Comment- “Safe Food” is not specifically defined; “It is therefore necessary to establish general requirements for only safe food and feed to be placed on the market, to ensure that the internal market in such products functions effectively”; “unsafe” is expressed; “1. Food shall not be placed on the market if it is unsafe, 2. Food shall be deemed to be unsafe if it is considered to be: (a) injurious to health; (b) unfit for human consumption. 3. In determining whether any food is unsafe, regard shall be had: (a) to the normal conditions of use of the food by the consumer and at each stage of production, processing and distribution, and (b) to the information provided to the consumer, including information on the label, or other information generally available to the consumer concerning the avoidance of specific adverse health effects from a particular food or category of foods. / 5. In determining whether any food is unfit for human consumption, regard shall be had to whether the food is unacceptable for human consumption according to its intended use, for reasons of contamination, whether by extraneous matter or otherwise, or through putrefaction, deterioration or decay.
234. **Scheme (GFSI):** A documented food safety scheme, which has specified requirements, specific rules and procedures.
235. **Scheme Owner (GFSI):** An organisation, which is responsible for the development, management and maintenance of a scheme.

236. **Shadow Economy (Black's law):** Collectively, the unregistered economic activities that contribute to a country's gross national product. A shadow economy may involve legal or illegal production of goods and services, including gambling, prostitution, and drug-dealing, as well as barter transactions and unreported incomes. –Also termed “black economy”; “black market”; “Underground Economy”.
237. **Simulation (Black's law):** 1. An assumption of an appearance that is feigned, false, or deceptive.  
2. Civil law; a feigned, pretended act, usually to mislead or deceive.
238. **Smuggled Foods (FDA, FSMA, USC):** In this subsection, the term “smuggled food” means any food that a person introduces into the United States through fraudulent means or with the intent to defraud or mislead.
239. **Standard (GFSI):** A normative document and other defined normative documents, established by consensus and approved by a body that provide, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.
240. **Statute (Black's Law):** A law passed by a legislative body; specifically legislation enacted by any lawmaking body, including legislatures, administrative boards, and municipal courts. The term “act” is interchangeable as a synonym.
241. **Statute, Criminal (Black's Law):** 1. an act that defines, classifies, and sets forth punishment for one or more specific crimes. See Penal Code.
242. **Statute, Penal (Black's Law):** A law that defines an offense and prescribes its corresponding fine, penalty, or punishment. – Also termed penal law; punitive statute.
243. **Supply Chain Control/ Supply-chain-applied control (FDA, FSMA, CFR):** Supply chain control means a preventive control for a hazard in a raw material or other ingredient when the hazard in the raw material or other ingredient is controlled before its receipt.
244. **Suspension (GFSI v7.2, Glossary):** The process by which a scheme is temporarily not recognised by GFSI.” (Comment- for example if a standard or scheme does not address all aspects of the GFSI Guidance Document.)
245. **TACCP – Threat Assessment and Critical Control Point plan (PAS96:2010):** “systematic management of risks through the process of assessment of threats, identification of vulnerabilities, and implementation of controls to raw materials, packaging, finished products, processes, premises, distribution networks and business systems by a knowledgeable and trusted team with the authority to implement changes to procedures; Also: It is the systematic assessment of threats, examination of processes to identify vulnerable points, and implementation of remedial action to improve resilience against malicious attacks by individuals or groups; And later: This PAS identifies three generic threats to food and drink: 1. Malicious contamination with toxic materials causing ill-health and even death; 2. Sabotage of the supply chain leading to food shortage; 3. Misuse of food and drink materials for terrorist or criminal purposes.”
246. **TACCP – Threat Assessment and Critical Control Point plan (PAS96:2014):** “systematic management of risk through the evaluation of threats, identification of vulnerabilities, and implementation of controls to materials and products, purchasing, processes, premises, distribution networks and business systems by a knowledgeable and trusted team with the authority to implement changes to procedures (Comment- same as PAS96:2010); Deliberate acts against food and food supply take several forms. Clause 3 describes the characteristics of the main threats to food authenticity and safety – economically motivated adulteration (EMA) and malicious contamination, and outlines the nature of other threats.” (Comment- expanded from PAS:2010 to include economically motivated adulteration) (see EMA-PAS96 definition)

247. **TACCP (GFSI/ FFTT, 2014):** prevention of intentional adulteration, ideologically motivated. One of three components under the GFSI Food Safety Management system which includes HACCP, TACCP, and VACCP. Comment- Food Defense assessments referring to “threats.” This is similar to previous the PAS 96 TACCP plan addressing traditional Food Defense incidents.
248. **Terrorism, Agroterrorist act (USC):** The term "agroterrorist act" means an act that- (A) causes or attempts to cause- (i) damage to agriculture; or (ii) injury to a person associated with agriculture; and (B) is committed or appears to be committed with the intent to- (i) intimidate or coerce a civilian population; or (ii) disrupt the agricultural industry in order to influence the policy of a government by intimidation or coercion (7 USC 8901)
249. **Threat (DHS Lexicon 2017):** natural or man-made occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property.
250. **Threat (SQF):** An identified risk that has the potential, if not controlled, to affect the quality of a product.
251. **Threat :** “... is the cause of an unwanted event that includes generally known variables or attributes of the source of the negative consequence (“threat source”) (ISO 2012, ISO 2002, 21 CFR 121, ANSI 2009, PAS96 2014, FSMA 2016, NIST 2002, CNSI 2010, UNODC 2010, DHS 2013) – this includes incident, hazard, damaging potential, etc. In crime and security science this is often a person(s) who have the intent and capability to cause harm. This is often applied to intentional acts with the intent to harm. The result of a threat assessment is usually a quantitative probability that the event to occur – but not an assessment of the consequence.” (Spink, Ortega, Chen & Wu, 2017)
252. **Tort (Black’s law):** 1. A civil wrong, other than breach of contract, for which a remedy may be obtained, usually in the form of damages; a breach of a duty that the law imposes on persons who stand in particular relation to one another. The branch of law dealing with such wrongs.
253. **Trade Secret (Black’s law):** 1. A formula, process, device, or other business information that is kept confidential to maintain an advantage over competitors; information – including formula, pattern, compilations, program, device, method, technique, or process – that (1) derives independent economic value, actual or potential, from not being generally known or readily ascertainable by others who can obtain economic value from its disclosure or use, and (2) is the subject of reasonable efforts, under the circumstances, to maintain its secrecy.
254. **Trademark (Black’s law):** 1. A word, phrase, logo, or other graphic symbol used by a manufacturer or seller to distinguish its product or products from those of others. The main purpose of a trademark is to designate the source of goods or services. In effect, the trademark is the commercial substitute for one’s signature. To receive federal protection, a trademark must be (1) distinctive rather than merely descriptive or generic; (2) affixed to a product that is actually sold in the marketplace; and (3) registered with the USPTO. in its broad sense, the term “trademark” includes “service mark”. Unregistered trademarks are protected under common-law only, and distinguish with the mark “TM”.” See Lanham Act.
255. **Tradename (Black’s law):** Intellectual property. 1. A name, style, or symbol used to distinguish a company, partnership, or business (as opposed to a product or service); the name under which a business operates.
256. **Trafficking (Black’s law):** The act of transporting, trading, or dealing, especially in people or illegal goods.
257. **Unconscionability (Black’s Law):** 1. Extreme unfairness. Unconscionability is normally expressed by an objective standard: (1) one party’s lack of meaningful choice, and (2) contractual terms that unreasonably favor the other party. 2. The principle that a court may refuse to enforce a contract that is unfair or oppressive because of procedural abuses during contract formation or because of

overreaching contractual terms, especially terms that are unreasonably favorable to one party by precluding meaningful choice for the other party. Because unconscionability depends on circumstances at the time the contract is formed, a later rise in market price is irrelevant.

258. **Unconscionable (Black's Law):** 1. (Of a person) having no conscience; unscrupulous <an unconscionable used-car salesman>. 2. (Of an act or transaction) showing no regard for conscience; affronting the sense of justice, decency, or reasonableness
259. **Unconscionable Agreement (Black's Law):** An agreement that no promisor with any sense, and not under a delusion, would make, and that no honest and fair promisee would accept.
260. **Unconscionable Bargain (Black's Law):** See unconscionable agreement under agreement
261. **Underground economy (Black's law):** See "Shadow Economy" or "Black Market."
262. **Unfit for human consumption (GFSI v7.2, Glossary):** Food which is unacceptable for human consumption, according to its intended use, for reasons of contamination, whether by extraneous matter or otherwise, or through putrefaction, deterioration or decay.
263. **Unsafe Food (Food safety requirements) (Eu178/2002):** See Safe Food.
264. **USC (U.S.C, US Code):** The United States Code is a consolidation and codification by subject matter of the general and permanent laws of the United States. It is prepared by the Office of the Law Revision Counsel of the United States House of Representatives.
265. **VACCP – Vulnerability Assessment and Critical Control Point plan (Summary):** Food Fraud assessments focusing on "vulnerabilities" rather than "risks." This provides a consistent nomenclature for referring to the different assessments.
266. **VACCP (GFSI/ FFTT, 2014):** prevention of intentional adulteration, economically motivated. One of three components under the GFSI Food Safety Management system which includes HACCP, TACCP, and VACCP.
267. **Validation (FDA, FSMA, CFR):** means obtaining and evaluating scientific and technical evidence that a control measure, combination of control measures, or the food safety plan as a whole, when properly implemented, is capable of effectively controlling the identified hazards.
268. **Verification (FDA, FSMA, CFR):** means the application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine whether a control measure or combination of control measures is or has been operating as intended and to establish the validity of the food safety plan.
269. **Verification (GFSI):** A confirmation, through the review of objective evidence that requirements have been fulfilled.
270. **Vulnerability (DHS Lexicon 2017):** physical feature or operational attribute that renders an entity, asset, system, network, or geographic area open to exploitation or susceptible to a given hazard.
271. **Vulnerability (Summary):** "...is a weakness or flaw that creates opportunities for undesirable events related to the system ("system design") (ISO 2007a, ISO 2002, ISO 2012, DHS 2013, NIST 2011, CNSSI 2010, NRC 2009, COSO 2014, Merriam-Webster 2004). The result of a vulnerability assessment is usually a qualitative statement of the susceptibility of the system – this influence the likelihood (NRC 2009). FSMA uses the term vulnerability specifically as it applies a vulnerability assessment to food defense (21CFR 121, 21 USC)." (Spink, Ortega, Chen & Wu, 2017)
272. **Written Procedures (FDA, FSMA, CFR):** for receiving raw materials and other ingredients means written procedures to ensure that raw materials and other ingredients are received only from suppliers approved by the receiving facility (or, when necessary and appropriate, on a temporary basis from unapproved suppliers whose raw materials or other ingredients are subjected to adequate verification activities before acceptance for use).

## Appendix: Additional Definitions

Table: Criminal types and attributes applicable (in Spink, Moyer, Park, & Heinonen 2013, (Spink et al., 2010) adapted from (Hagan, 2010))

| <b>Types of criminals</b> | <b>Definition</b>   |
|---------------------------|---|
| <b>Recreational</b>       | Action for entertainment or amusement   |
| <b>Occasional</b>         | Infrequent, opportunistic   |
| <b>Occupational</b>       | Incidents at their place of employment either as an individual act or in collaboration with the company   |
| <b>Professional</b>       | Crime fully finances their lifestyle  |
| Note: Not Ideological     | A domestic or international terrorist who commits this act to has a motivation of economic gain. They would use the economic gain for another action that is to achieve a goal or to make an ideological statement. |

Table: Food Fraud Types, Definitions, and Examples (adapted from (Spink, 2011; GFSI, 2014, 2017; SSAFE Organization, 2015; PWC, 2016; Spink, 2016)

| <b>GFSI (1) Type of Food Fraud</b>  | <b>Definition from SSAFE (2)</b>   | <b>Examples from GFSI FFTT (3)</b>   | <b>General Type of Food Fraud</b> |
|---|--|--|-----------------------------------|
| <b>Dilution</b>   | The process of mixing a liquid ingredient with high value with a liquid of lower value.  | <ul style="list-style-type: none"> <li>Watered down products using non-potable / unsafe water</li> <li>Olive oil diluted with potentially toxic tea tree oil</li> </ul>                        | Adulterant-substance (Adulterant) |
| <b>Substitution</b>   | The process of replacing an ingredient or part of the product of high value with another ingredient or part of the product of lower value. | <ul style="list-style-type: none"> <li>Sunflower oil partially substituted with mineral oil</li> <li>Hydrolyzed leather protein in milk</li> </ul>   | Adulterant-substance or Tampering |
| <b>Concealment</b>  | The process of hiding the low quality of a food ingredients or product.  | <ul style="list-style-type: none"> <li>Poultry injected with hormones to conceal disease</li> <li>Harmful food colouring applied to fresh fruit to cover defects</li> </ul>                    | Adulterant-substance or Tampering |
| <b>Unapproved enhancements</b>  | The process of adding unknown and undeclared materials to food products in order to enhance their quality attributes.                      | <ul style="list-style-type: none"> <li>Melamine added to enhance protein value</li> <li>Use of unauthorized additives (Sudan dyes in spices)</li> </ul>  | Adulterant-substance or Tampering |
| <b>Mislabelling</b>   | The process of placing false claims on packaging for economic gain.  | <ul style="list-style-type: none"> <li>Expiry, provenance (unsafe origin)</li> <li>Toxic Japanese star anise labeled as Chinese star anise</li> <li>Mislabeled recycled cooking oil</li> </ul> | Tampering                         |
| <b>Grey market production/ theft/diversion</b>  | Outside scope of SSAFE tool.   | <ul style="list-style-type: none"> <li>Sale of excess unreported product,</li> <li>Product allocated for the US market appearing in Korea</li> </ul>   | Over-run, Theft, or Diversion (4) |
| <b>Counterfeiting</b>   | The process of copying the brand name, packaging concept, recipe, processing method etc. of food products for economic gain.               | <ul style="list-style-type: none"> <li>Copies of popular foods not produced with acceptable safety assurances</li> <li>Counterfeit chocolate bars</li> </ul>                                   | Counterfeiting                    |
| <p>Notes:</p> <p>(1) GFSI – Global Food Safety Initiative</p> <p>(2) SSAFE – Safe Secure and Affordable Food For Everyone</p> <p>(3) GFSI FFTT – Global Food Safety Initiative: Food Fraud Think Tank</p> <p>(4): Gray Market -- a market employing irregular but not illegal methods; Theft -- something stolen; Diversion/ Parallel Trade -- the act or an instance of diverting straying from a course, activity, or use</p> |  |  |                                   |

Table: Types of Offender Organizations (Spink, Moyer, Park &amp; Heinonen 2013)

| Type of Offender Organization  | Definition or Explanation   |
|--|---|
| <b>Individual/ Small Groups:</b>   | “Although there are IPR cases involving solo or small groups of individuals who operate out of their homes, garages, or small storage facilities, there is little reporting and no actual analysis of the relative importance of such operators to the threat. ... This lack of reporting and analysis may be a reflection of the fact that individuals and small operations are a less attractive target for law enforcement than larger enterprises engaging in more significant infringing activity or also committing other more serious offenses.”   |
| <b>General Criminal Enterprises (Members):</b>   | An example used to identify this group is “an Asian criminal enterprise of 30 defendants charged with smuggling into the United States counterfeit cigarettes worth approximately \$40 million and other counterfeit goods, including pharmaceuticals worth several hundred thousand dollars.”  |
| <b>Organized Crime Members (Members):</b>  | “Organized crime groups are a specialized subset of criminal enterprises that maintain their position through the use of actual or threatened violence, corrupt public officials, graft, or extortion. For example, members of the Lim Organization, an Asian organized crime group in New York, trafficked in counterfeit goods and were charged with attempted murder and conspiracy to commit murder.” An aspect of deterring this group is the use of violence and the risk of retaliation to a company or investigators (e.g., violence or sabotage).  |
| <b>Terrorist Organizations (Supporters):</b>   | “Terrorist supporters have used intellectual property crime as one method to raise funds. Central to this judgment is the distinction between terrorist supporters who merely provide funding and resources to a terrorist organization versus terrorist organization members who engage in the actual terrorist activities of violence. ... It is widely reported terrorist supporters may use IPR crimes to provide indirect financial support to terrorist organizations, but little current evidence suggests terrorists are engaging directly in IPR crimes to fund their activities.” There are many confirmed cases of product counterfeiting funding terrorist acts. For example, it was confirmed that the 1993 World Trade Center bombing was partially funded by the sale of counterfeit products (FBI, 2008). |
| <b>Gangs in the United States (Supporters):</b>  | “According to the National Gang Intelligence Center (NGIC), there are three subtypes of gangs: street gangs, prison gangs, and outlaw motorcycle gangs of these three groups, street gangs most often engage in and profit from IP theft, therefore this analysis focuses exclusively on this subtype.”   |
| <b>Foreign Government Offenders:</b>   | The primary motivation in this offender group is the theft of sensitive United States information including trade secrets and economic espionage. There are examples of state-sponsored counterfeits of branded products.   |
| <b>Warez Groups:</b>   | “[A] less common motivation for committing IPR [infringement] is personal fame and notoriety. These individuals are often members of Warez groups, sophisticated and hierarchical criminal groups operating in the United States and abroad that specialize in distributing infringing movies, music, and software via the Internet.”   |
| Note: Members: The individual criminals may be acting alone but have known ties to the organization and participate in the illegal activities of the group. An example is a gang member who separately produces and sells counterfeit DVDs.  |   |
| Note: Sympathizers or supporters: These may agree with the ideology of a group and provide financial support to the criminal organization, but do not participate in the primary criminal activities of the organization. An example is a criminal who contributes funds to a terrorist organization but does not him or herself, commit terrorist acts. |   |

***MSU's Food Fraud Initiative will continue to inform global stakeholders as to the relationship between Food Fraud and Economically Motivated Adulteration, Food Crime, Food Integrity, and Food Authenticity in order to encourage a global set of terms and definitions that are consistent.***

***Note: MSU's Food Fraud Initiative (FFI) conducts a wide range of teaching, research and outreach projects. The "FFI Report" series was created to review specific emerging topics or recent laws, regulations, certifications, standards, or best practices. The summary and insight is not legal advice and is not intended to replace the counsel of a food law expert.***

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