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Food safety: a critical part of the food system in Africa

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RESOURCES

Glossary[1]

Abattoir: Any premises or facility where live animals are slaughtered or and any or all of the following take place: meat is cut, wrapped, frozen, cured, smoked or aged.

Acceptable Limit: A point that separates satisfactory conditions from unsatisfactory conditions relative to food safety.

Accredited: A facility that has been recognized by an authoritative body based on a set of requirements that is logical, fair, sensible and rational.

Adulterated Food: Food that has been contaminated so that it is considered unfit and unsafe for human consumption.

Agent: A substance or condition that exerts some effect on food safety.

Allergens: Substances that cause an exaggerated immune response in some people and that may result in a runny nose, watery and/or itchy eyes, a rash, wheezing, serious illness or (occasionally) death.

Audit: Systematic organized and independent examination that may involve both paper reviews and on-site checking of a food processing facility to determine whether the operation is following the rules of its food safety system. An audit looks for proof that you do what you say you do, and it is appropriate.

Bacteria: Single-celled organisms that live in and around humans and other hosts, and that are too small to be seen with the naked eye.

Batch Number or Lot Number: A distinct identification code for each product or batch. It may be in the form of a distinctive combination of letters, numbers or both assigned to a specific identifiable batch/lot of production. It is usually found on each individual container.

Biological Hazard: Any danger to food safety by the contamination of food with illness or disease-causing organisms.

Certification: The status obtained after being successfully certified under a food safety certification audit. The facility receives certification once it has provided evidence to that its food safety system meets the specified requirements of the food safety standard.

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Certification Body: An organization that is licensed to conduct audits and provide official recognition of compliance to certain standards.

Chemical Hazard: Any chemical that through contamination presents a danger to food safety.

Clean: Free of soil particles and other foreign material.

Code: A systematic collection of regulations and rules of procedure or conduct (e.g. General Principles of Food Hygiene or the Food Retail and Foodservices Code).

Codex or The Codex Alimentarius Commission: An organization formed by the World Health Organization (WHO) and Food and Agriculture Organization (FAO). Comprised of representatives from 165 countries, it develops internationally accepted food safety standards.

Cold Chain: The process of maintaining proper refrigeration or freezer temperatures during transportation to prevent deterioration of food products or ingredients.

Communicable Disease: An illness that is caused by an organism, microorganisms or its toxins. It is transmitted directly or indirectly from an infected person or animal, or through the environment by water, air or other means.

Conformity: Ability to meet set standards.

Contamination: A condition that can affect food that has been exposed to and faced introduction of foreign matter, including filth, a poisonous substance or pests, disease-causing microorganisms or parasites, or toxins.

Contaminant: any biological or chemical agent, foreign matter, or other substances that may compromise food safety or suitability.

Control Measure: Any action or activity that can be used to prevent, reduce or eliminate a food safety hazard.

Control Point (CP): Any step at which biological, physical, allergenic or chemical factors can be dealt with through operational conditions to prevent food safety hazards and to support producing safe food that will not result in an unacceptable health risk.

Critical Control Point (CCP): A point, process step, or a site where an action or procedure can be applied to prevent, eliminate or reduce a food safety hazard to and acceptable level.

Critical Limit: The maximum or minimum level to which an allergenic, biological, chemical or physical hazard has to be controlled to prevent, eliminate or reduce its occurrence to an acceptable level.

Cross contamination: A situation that occurs when micro-organisms, allergens, chemicals or other hazards that are carried by utensils, hands, towels or other food are transferred from one food, ingredient or surface to another.

Edible Product: Any substance that may be used as food. Endospore: A resting stage of some bacteria, during which the bacteria is resistant to unfavourable conditions. An endospore serves a purpose similar to the seed of a plant.

Environmental Contamination: The presence of hazardous substances in the atmosphere or surroundings.

Food: Any substance, including water and ice, manufactured, sold or intended for use in whole or in part as food or drink for human consumption.

Foodborne Illness: Sickness or injury caused by eating food containing a microbiological, chemical or physical hazard(s).

Food-Contact Surface: The surface of equipment or utensils that food normally touches.

Food-Grade Packaging: Any wrapping or container material that will not transfer noxious or toxic substances into food and has been approved by the Canadian Food Inspection Agency.

Food Handler: A person involved in any activity that relates to food processing, transportation or storage, or who works with a surface likely to come into contact with food.

Food Hygiene: All measures necessary to guarantee the safety of food at all stages of the food chain.

Food poisoning: An illness that occurs when people eat food that has been contaminated with harmful germs (particularly bacteria and viruses) or toxins (poisonous substances).

Food Safety: Activities to protect the food supply from microbial, chemical, allergenic and physical hazards that may occur during all stages of food production and handling.

Food Safety System: A set of procedures or plans designed to ensure that food is protected and wholesome to eat. In food processing, a set of independent but interrelated control elements to ensure compliance with all legislated food safety regulations, the product protection plan or the HACCP plan used, or proposed by a food processor or applicant.

Gap Assessment Audit (GAP Audit): A systematic examination of a food processing program (including the applicable management, production, training and related systems, as well as their records to identify any shortcomings in the program).

General Principles of Food Hygiene (GPFH): A recommended international code of practice adopted by Codex Alimentarius Commission in 1969 and revised in 1997. This code consists of prerequisites and Control of Food Hazards, similar to the seven principles of HACCP used in development of HACCP plans. The GPFH code contains guidelines for application of both prerequisite programs and Control of Food Hazards Plans in a variety of situations from production through to the consumer.

Generic HACCP Model: Generalized HACCP plans designed for a specific product or product category that can be used as an example or guideline for developing a plant-specific HACCP plan.

Good Agricultural Practices (GAP's): This refers to an integrated management system and the resulting 'best-practices' designed to ensure the efficient production of safe agricultural products.

Good Manufacturing Practices (GMP's): General procedures to reduce food safety hazards.

Good Hygienic Practices (GHP): The basic rules for the clean and healthy handling, storage, processing, distribution and final preparation of all food along the food production chain.

HACCP: Acronym of 'Hazard Analysis Critical Control Point', a systematic approach used in food production as a risk-based means to ensure food safety. A system that identifies, evaluates and controls hazards that are significant for food safety.

HACCP Reference Standard: A written standard that provides all of the details necessary to implement a food safety program based on HACCP. It is an effective means of assuring food safety.

Hazard: A biological, chemical or physical agent or factor with the potential to cause an adverse health effect.

Hazard Analysis: Collecting and evaluating information on agents in or conditions of food with the potential to cause a significant adverse health effect or injury in consumers, and that must be addressed in the HACCP plan.

Hazard Characterization: The evaluation of the nature of the harmful effects associated with biological, chemical, allergenic and physical agents present in food.

Hygiene: Conditions and practices followed to maintain health including sanitation and personal cleanliness.

Immune Response: A bodily defence reaction that recognizes an invading substance (such as a virus, bacteria or allergen) and produces antibodies to counter the invader.

Immunodeficiency: Impairment of the immune response that makes a person susceptible to infection and certain illnesses.

Integrated Pest Management: A decision-making process to foresee and prevent pest activity and infestation.

ISO: International Organization for Standardization, a worldwide federation of national standards bodies (ISO- member bodies). The work of preparing national standards is normally carried out through ISO technical committees. Members of technical committees can be international organizations, governments and non-government groups.

Label: Any legend, word, ticket, tag, sign or mark attached to, included in, belonging to or accompanying any food or food package.

Letter of Recognition: A document awarded to a producer organization or processor following the successful completion of the 'Recognition Audit Process.'

Lot Number: A distinct code for each product, batch or container. A distinctive combination of letters and/or numbers assigned to a specific identifiable batch of production.

Low-Risk Food: Food that is unlikely to contain pathogenic micro-organisms and that (normally) will not support their growth due to the characteristics of the food (e.g. un-

cooked grains and cereals, bread, carbonated beverages, sugar-based confectionary, alcohol).

Medium-Risk Foods: These foods may contain pathogenic microorganisms but will not normally support their growth due to the characteristics of the food. Usually they are acidic, dried or high in salt (more than 20%) or sugar (more than 50%).

Microbial Hazard: Microscopic organisms associated with foods that have the potential to cause an adverse health effect or injury to consumers.

Microbial: Of or relating to micro-organisms, or to any life form too small to be seen with the naked eye.

Mock Recall: A process designed to assess the effectiveness of a food processor's recall program and the readiness of the recall team. Mock recalls help to identify any gaps in traceability or problems that might have developed (e.g. new employees not following established protocols).

Mould: A small multi-celled plant-like organism (classed a fungi) that generally reproduces by spore formation. These spores are very light and easily carried by air currents. They are also very resistant to drying and freezing, but are easily destroyed by heat.

Non-hazardous Food: A food that has a shelf life greater than 90 days at room temperature.

On Farm Food Safety (OFFS): Food safety programs developed to create the proper operating environment to minimize food safety risks on farms by implementing Good Agricultural Practices.

On-site Verification: The process of checking that the food safety system in an establishment has been implemented as written. This requires an audit of the operating food safety system to confirm it is implemented as designed and that the system is effective in meeting the requirements as set out in the reference standard.

Operator: A person controlling, causing to function or engaging in a food-processing business.

Package: Anything that food is wholly or partly contained, placed or packed.

Parasite: An organism that lives in or on the living tissue of a host organism at the expense of that host.

Pathogen, Pathogenic Bacteria or Pathogenic Microorganism: Any bacteria, virus, mould or other form of life that is too small to be seen by the naked eye and that is capable of causing disease, illness or injury.

Perishable: Any food product or ingredient that is susceptible to deterioration or loss of quality when subjected to temperature abuse.

Pest: Any animal or insect of public health importance, including, but not limited to birds, rodents, roaches, flies and larvae that may carry pathogens that can contaminate foods.

Pesticide: A substance used to prevent, destroy or repel any insect, nematode, rodent, predatory animal, parasite, bacteria, fungus, weed or other form of plant or animal life.

Physical Hazard: Any danger to food safety by the contamination of food with any foreign materials that are not normally found in food.

Risk: The likelihood of an occurrence and the size of the consequences of an adverse event. A measure of the probability of harm and the severity of impact of a hazard. Risk Analysis: A process that includes risk assessment, risk management and risk communication.

Risk Assessment: The process of identifying a hazard and characterizing the risk presented by that hazard in qualitative or quantitative terms.

Risk Communication: An open exchange of information and opinion leading to a better understanding of risk and risk-related decisions.

Risk Management: The process of identifying, evaluating, selecting and implementing alternatives for mitigating or lowering risk.

Sanitation/ Sanitizing: The application of some method or material to destroy all disease producing pathogens and other harmful organisms. Such treatment should result in a surface that is safe from a public health standpoint and that contributes to food protection and an extended shelf life.

Shelf Life: The period of time that a product can be stored under specified temperature conditions and remain suitable for use.

Spoilage Bacteria: Bacteria that break down foods so that they look, taste, and smell bad. Spoilage bacteria primarily affect the quality of food but also may affect product safety.

Standard Operating Procedure (SOP): A written description of a particular task or procedure to ensure safe food handling. A set of instructions describing the activities necessary to complete a task that reduces the risk of foodborne illness.

Sterilize: To completely eliminate microbial viability by approved means. To make free from all forms of life, including bacteria, usually using chemical or heat methods.

Systems Audit: A procedure that verifies the applicant's written food safety system contains all of the required components and that each component meets or exceeds the requirements in the reference standard.

Temperature Abuse: A situation that arises when food is not held at the proper temperature (e.g. keeping raw meat at room temperature for more than two hours before cooking).

Temperature Log: An ongoing record of food temperatures.

Traceability: To check the history, application or location of a food item by means of recorded information by tracking a food item forwards or backwards through the food-supply chain.

Tracing/ Tracking: Identifying the origin of an item or group of items through records back or forward through the food-supply chain.

Validation: The process of obtaining evidence that the elements of your HACCP plan are effective. Validation involves obtaining confirmation that the elements of the HACCP system, including critical control points are complete and effective in controlling biological, chemical, and physical and allergen hazards. This may include challenge studies, heat distribution and process validation studies.

Verification: Verification is the use of methods, procedures, tests and other means to check whether the HACCP system is correctly in place and if it is being followed (e.g. checking to make sure the temperature has been reached). Although the validation and verification activities may be similar, results from verification activities are not intended to be used to make decisions on the acceptability of products. Instead, the verification results are used to check the adequacy of food safety controls or how well they are working.

Virus: Any simple sub-microscopic parasites of plants, animals and bacteria that often cause disease and essentially consist of a core of RNA or DNA surrounded by a protein coat. Since they are unable to reproduce without a host cell, viruses typically are not considered living organisms.

Water Treatment: The use of chemicals or filtration to make water potable or suitable for boiler use.

Acronyms

BTSF	Better Training for Safer Food (EC training initiative)
CA	Certifying authority
CAC/Codex	Codex Alimentarius Commission
CB	Certification Body
CDC	Centers for Disease Control and Prevention
CFSAN	Center for Food Safety and Applied Nutrition (part FDA)
COLEACP	The Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP)
DG SANCO	Directorate General for Health and Consumers (EC)
DV Audits	Direct Verification Audits
ECA	European Chemicals Agency
ECDIN	Environmental Chemical Data Information Network (EC)
ECETOC	European Chemical Industry Ecology and Toxicology Centre
EFSA	European Food Safety Association
EU	European Union
EUREPGAP	Euro-Retailer Product Working Group GAP
FAO	Food and Agriculture Organization (part of UN)
FD&C	Federal Food, Drug, and Cosmetic Act
FDA	United States Food & Drug Administration
FERG	Foodborne Disease Burden Epidemiology Reference Group
FoodNet	Foodborne Diseases Active Surveillance Network
FSIS	Food Safety and Inspection Service
FSMS	Food Safety Management System
FSSC 22000	Food Safety System Certification
FVO	Food and Veterinary Office (European Union)
GAP	Good Agricultural Practices
GAqP	Good Aquaculture Practices
GFSI	Global Food Safety Initiative
GFSP	Global Food Safety Partnership
GHP	Good Handling Practices
GIP	Good Importer Practice
GMP	Good Manufacturing Practices
HACCP	**Hazard** Analysis and Critical Control Points
HARPC	**Hazard** Analysis and Risk-Based Preventive Controls
IFS	International Food Standard
INFOSAN	International Food Safety Authorities Network
ISO	International Organization for Standardization
MRL	Maximum Residue Limit
NGO	Non-governmental organization
OIE	World Organization for Animal Health
PCQI	Preventive Controls Qualified Individuals
RTE	Ready-to-eat
SPS	Sanitary and Phytosanitary
SQF	Safe Quality Food
SSOP	Sanitation Standard Operating Procedure
TBT	Technical Barriers to Trade
TCS	Time/Temperature Control for Safety
USDA	U.S. Department of Agriculture
UNECE	United Nations Economic Commission for Europe
WHO	World Health Organization
WTO	World Trade Organization

Resources
French resources in italics

Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP)

COLEACP. 2011. PIP « Principes d'Hygiène et de Management de la Qualité Sanitaire et Phytosanitaire »
https://www.sustainabilityxchange.info/filesagri/COLEACP_Manuel_1_FR.compressed.pdf

COLEACP. 2009. "Position paper on the potential impact of proposed changes to EU pesticide regulations on ACP countries" PIP Report.
https://www.coleacp.org/en/system/files/file_fields/2018/08/29/positionpaperonthepotentialimpactof.pdf

European Union

Commission Notice on the implementation of food safety management systems covering prerequisite programs (PRPs) and procedures based on the HACCP principles, including the facilitation/flexibility of the implementation in certain food businesses (C/2016/4608)
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016XC0730%2801%29
Communication de la Commission relative à la mise ne œuvre d'un plan de maîtrise sanitaire du secteur alimentaire applicable aux programmes prérequis (PRP) et aux procédures fondées sur les principes HACCP, y compris la flexibilité accordée à certaines entreprises C/2016/4608
https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A52016XC0730%2801%29

European Commission. 2014. "Food safety From farm to fork : safe and healthy food for everyone"
https://publications.europa.eu/en/publication-detail/-/publication/946e612c-6b31-4805-89bc-b0c90fa881cf/language-en
Commission européenne, 2014. « Sécurité alimentaire De la ferme à la table : des aliments sûrs et sains pour tous »
https://publications.europa.eu/fr/publication-detail/-/publication/946e612c-6b31-4805-89bc-b0c90fa881cf

Food and Agriculture Organization

FAO. 2017. "Food Safety Risk Management: Evidence-Informed Policies and Decisions, Considering Multiple Factors" FAO Guidance Materials. FAO, Rome.
http://www.fao.org/3/i8240en/I8240EN.pdf

FAO and PAHO. 2017. Food Handlers Manual. Instructor. Washington, DC : PAHO, 2017.
http://www.fao.org/3/a-i5896e.pdf

FAO and WTO. 2017. Trade and Food Standards. FAO, Rome
http://www.fao.org/3/a-i7407e.pdf
FAO et OMC. 2017. « Le Commerce et les Normes Alimentaires » FAO, Rome
http://www.fao.org/3/i7407fr/I7407FR.pdf

FAO Regional Conference for Africa "Trends and issues in food and agriculture for national and regional action in the context of the SDGs" 29th Session, March 2016 ARC/16/3 (Abidjan, Côte d'Ivoire, 4-8 April 2016)
http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Keynote_Speech_delivered_by_Dr._Akinwumi_A._Adesina__President_of_the_African_Development_Bank_Group__at_the_Africa_Green_Revolution_Forum__Nairobi__8_September_2016.pdf

FAO and WHO. 2016. Codex Al "Understanding Codex"
http://www.fao.org/3/a-i5667e.pdf

FAO. 2016. “Influencing food environments for healthy diets”. FAO, Rome
http://www.fao.org/3/a-i6484e.pdf

FAO and WHO. 2016. “Risk communication applied to food safety handbook” FAO. Rome
http://www.fao.org/3/a-i5863e.pdf

FAO. 2013. “Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems”
http://www.fao.org/docrep/006/y8705e/y8705e00.htm

FAO. 2007. Guidelines “Good Agricultural Practices for Family Agriculture”
http://www.fao.org/3/a-a1193e.pdf

FAO and WHO. 2006. “FAO/WHO Guidance to Governments on the Application of HACCP in Small and/or Less-Developed Food Businesses”
http://www.fao.org/tempref/AG/agn/food/haccp_061031_.pdf

FAO. 2006. “Food Safety Certification” FAO, Rome
ftp://ftp.fao.org/docrep/fao/008/ag067e/ag067e00.pdf

FAO and WTO. 2003. “Assuring Food Safety and Quality. Guidelines for Strengthening National Food Control Systems”
http://www.fao.org/3/a-y8705e.pdf
OMS et FAO. 2003. « Garantir la sécurité sanitaire et la qualité des aliments. Directives pour le renforcement des systèmes nationaux de contrôle alimentaire »
http://www.wpro.who.int/foodsafety/documents/docs/French_Guidelines_Food_control.pdf

International Food Policy Research Institute

Badiane, Ousmane, Odjo, Sunday, and Collins, Julia (Eds). 2018. Africa Agriculture Trade Monitor Report 2018. Washington, DC: International Food Policy Research Institute (IFPRI).
http://www.resakss.org/sites/default/files/AATM-Web-Final-28-08-18.pdf

Brown, Lynn R. 2018. Aflatoxins in food and feed: Impacts risks, and management strategies. GCAN Policy Note 9. Washington, DC: International Food Policy Research Institute (IFPRI).
http://cdm15738.contentdm.oclc.org/cdm/ref/collection/p15738coll2/id/132734

Hoffmann, Vivian; and Jones, Kelly M. 2018. Improving food safety on the farm: Experimental evidence from Kenya on agricultural incentives and subsidies as public health investments. IFPRI Discussion Paper 1746. Washington, DC.: International Food Policy Research Institute (IFPRI).
http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132768

Grace, Delia; Alonso, Silvia; Mutua, Florence; Hoffmann, Vivian; Lore, Tezira; and Karugia, Joseph. 2018. Food safety in Kenya: Focus on dairy. Project Note. Washington, D.C.: International Food Policy Research Institute (IFPRI).
http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132372

International Food Policy Research Institute (IFPRI). 2018. Food Industries for People & Planet: A new research agenda.
http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132349

Yen, Eric; Hoffman, Vivian; Grace, Delia; Karugia, Joseph; and Aguda, Rikki. 2018. Food safety in Kenya: Focus on fruits and vegetables. Project Note. Washington, DC: International Food Policy Research Institute (IFPRI).
http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132321

Hoffmann, Vivian; and Jones, Kelly M. 2017. Incentives and subsidies for farmer adoption of food safety technologies. Project Note. Washington, D.C.: International Food Policy Research Institute (IFPRI).

http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/131126

Hoffmann, Vivian; and Moser, Christine. 2017. You get what you pay for: the link between price and food safety in Kenya. Agricultural Economics 48(4): 449-458.
https://doi.org/10.1111/agec.12346

Ragasa, Catherine; Thornsbury, Suzanne; and Joshi, Satish. 2017. Dynamics of EU food safety certification: a survival analysis of firm decisions. Agricultural and Food Economics 5(1): 11
https://doi.org/10.1186/s40100-017-0080-2

Unnevehr, Laurian J. and Ronchi, Loraine. 2014. Food safety and developing markets: Research findings and research gaps. IFPRI Discussion Paper 1376. Washington, D.C.: International Food Policy Research Institute (IFPRI).
http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/128359

International Livestock Research Institute

Grace, D., Alonso, S., Mutua, F., Roesel, K., Lindahl, J. and Amenu, K. 2018. Food safety investment expert advice: Burkina Faso, Ethiopia, Nigeria. Nairobi, Kenya: ILRI.
https://cgspace.cgiar.org/bitstream/handle/10568/91963/Food%20safety%20investment%20Mar%202%20General.pdf?sequence=1&isAllowed=y

Grace, D. 2017. Food safety in developing countries: research gaps and opportunities. White paper. Nairobi, Kenya: ILRI.
https://bit.ly/2x4VZ4A

Roesel, K., Grace, D., (eds). 2015. Food safety and informal markets- animal products in sub-Saharan Africa. 2015. Routledge Taylor & Francis Group, earthscan from Routledge ILRI
http://hdl.handle.net/10568/42438
Roesel, K. et Grace, D. 2016. « Sécurité sanitaire des aliments et marchés informels: les produits d'origine animale en Afrique Subsaharienne »
https://cgspace.cgiar.org/bitstream/handle/10568/79976/PR_FoodSafety_fr.pdf?sequence=5

International Standards Organization

ISO. 2018. "Food safety management - ISO 22000:2018"
https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100430.pdf

ISO. 2017. "ISO and food"
https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/iso_and_food_en.pdf

Technical Centre for Agricultural and Rural Cooperation (CTA)

Kuit, M. and Waarts, Y. 2014. Small-scale farmers, certification schemes and private standards: Is there a business case?
https://publications.cta.int/en/publications/publication/1823/
Kuit, M. et Waarts, Y. 2014. « Petits producteurs, systèmes de certification et normes privées : Le système est-il rentable ? »
https://publications.cta.int/en/publications/publication/1824/trade/

Spore Magazine. 2018. "Agricultural Trade: Transforming the informal economy" No. 188 March 20, 2018 CTA
http://spore.cta.int/images/188/Spore-188-EN-WEB.pdf
Magazine Spore. 2018. « Commerce Agricole : Transformer l'économie informelle » Mars 20, 2018 CTA
http://spore.cta.int/images/188/Spore-188-FR-WEB.pdf

World Health Organization

WHO. 2015. “WHO estimates of the global burden of foodborne diseases: Foodborne diseases burden epidemiology reference group 2007-2015”
http://www.who.int/iris/bitstream/10665/199350/1/9789241565165_eng.pdf?ua=1

WHO. 2012. Guidelines for Developing and Implementing a National Food Safety Policy and Strategic Plan. World Health Organization, Geneva
https://afro.who.int/sites/default/files/2017-06/developing-and-implementing-national-food--main-english-final.pdf
OMS. 2012. « Guide pour l’élaboration et la mise en œuvre d’une politique et d’un plan stratégique nationaux en matière de sécurité sanitaire des aliments »
https://afro.who.int/sites/default/files/2017-06/guide-d%27elaboration.pdf

Other Sources

African Union Commission. 2018. “First progress report of the Chairperson of the Commission on Food Safety”
http://www.peaceau.org/uploads/paca-report-to-the-prc-food-safety.pdf

Brookings Institute. 2016. “Foresight Africa: Top priorities for the continent in 2016”
https://www.brookings.edu/wp-content/uploads/2016/01/foresightafrica2016_ch6-3.pdf

Calder, P.C. and Jackson, A.A. 2000. “Undernutrition, infection and immune function.” Nutrition Research Reviews, 2000. 13:3-29.
https://doi.org/10.1079/095442200108728981

Compendium - Final Report Zero Hunger Challenge Working Groups
http://www.un.org/en/zerohunger/pdfs/Renewed%20ZHC%20ANs-3%20Systems-Ebook.pdf

Cunningham-Rundles, S. et al. 2005. ”Mechanisms of nutrient modulation of the immune response”. The Journal of Allergy and Clinical Microbiology, 2005. 115(6): 1119-1128.
https://doi.org/10.1016/j.jaci.2005.04.036

Egorov, A.I. et al., 2010. “The effect of Helicobacter pylori infection on growth velocity in young children from poor urban communities in Ecuador”. International Journal of Infectious Diseases, 2010. 14(9):788-791.
https://www.sciencedirect.com/science/article/pii/S1201971216311304

Fernandes TH., et al. “Nutrition, Food Safety and Quality in Sub-Saharan Africa”. EC Nutrition 9.6 (2017): 243-255.
https://www.ecronicon.com/ecnu/pdf/ECNU-09-00322.pdf

Global Panel. 2016. Assuring Safe Food Systems: Policy Options For a Healthier Food Supply. Policy Brief. London, UK: Global Panel on Agriculture and Food Systems for Nutrition.
http://glopan.org/sites/default/files/Food-Safety-Policy-Brief.pdf

Grace, D., Dominguez-Salas, P., Alonso, S., Fahrion, A., Haesler, B., Heilmann, M., Hoffmann, V., Kang’ethe, E., Roesel, K. and Lore, T. 2018. Food safety metrics relevant to low and middle income countries: Working paper. Agriculture, Nutrition and Health Academy, Food Safety Working Group. London, UK: Innovative Methods and Metrics for Agriculture and Nutrition Actions programme.
http://hdl.handle.net/10568/92507

Grace, D. . 2015. “Food Safety in Developing Countries: An Overview” Agrilinks
https://www.agrilinks.org/sites/default/files/resource/files/EoD_Learning_Resource_Food%20Safety_updFeb2016-1.pdf

Grace, D. 2015. Food Safety in Low and Middle Income countries. International Journal of Environmental Research and Public Health, 2015. 12(9):10490-10507.
http://www.mdpi.com/1660-4601/12/9/10490/pdf

Gregor, M.F. and Hotamisligil, G.S. 2011. “Inflammatory Mechanisms in Obesity”. Annual Review of Immunology, 2011. 29: 415-445.
https://doi.org/10.1146/annurev-immunol-031210-101322

Groop, L.C., et al. 1992. “Effect of insulin on oxidative and nonoxidative pathways of free fatty acid metabolism in human obesity”. American Journal of Physiology- Endocrinology and Metabolism, 1992. (263) 1.
https://doi.org/10.1152/ajpendo.1992.263.1.E79

IFAD, 2016. “Rural-urban linkages and food systems in sub-Saharan Africa The rural dimension”
https://www.ifad.org/documents/10180/b9021802-e3f7-4bd5-b0ea-760a8fbaabc2

International Trade Centre. 2011. “ The Impacts of Private Standards on Global Value Chains.” Geneva: ITC, 2011. x, 41 p. (Literature Review Series on the Impacts of Private Standards; Part I) Doc. No. MAR-11-198.E
http://www.intracen.org/WorkArea/DownloadAsset.aspx?id=37609

M. Uyttendaele, L. Jacxsens, S. Van Boxstael. 2014. “4 - Issues surrounding the European fresh produce trade: a global perspective”, Editor(s): J. Hoorfar, Global Safety of Fresh Produce, Woodhead Publishing, 2014, Pages 33-51
https://doi.org/10.1533/9781782420279.1.33.

Malte Ehrich, Fatima Kareem, Dr. Amjad Masood, Dr. Anna Müller. 2015. “Obstacle or opportunity? Food safety standards as a challenge for developing countries”. GlobalFood Policy Brief Nr. 1 2015
https://bit.ly/2CDMxL3

Manning, L and Soon, JM .2016. “Food Safety, Food Fraud, and Food Defense: A Fast Evolving Literature” Vol. 81, Nr. 4, 2016 Journal of Food Science.
https://doi.org/10.1111/1750-3841.13256

Michigan State University “Regulating the Quality and Safety of Foods”
https://msu.edu/course/fsc/421/Powerpoints/Food%20Safety%20and%20Quality.ppt

Morse, Tracy D. and Masuku, Humphreys and Rippon, Sarah and Kubwalo, Hudson (2018) Achieving an integrated approach to food safety and hygiene—meeting the sustainable development goals in Sub-Saharan Africa. Sustainability, 10 (7). ISSN 2071-1050
https://strathprints.strath.ac.uk/64746/1/Morse_etal_Sustainability_2018_Achieving_an_integrated_approach_to_food_safety_and_hygiene.pdf

OECD. 2009. Interaction of Public and Private Standards in the food Chain
http://www.oecd.org/tad/agricultural-trade/45013504.pdf

Oliver von Hagen, Joseph Wozniak, Mathieu Lamolle. 2014. « Normes privées relatives à la sécurité et à la qualité des aliments dans le commerce international »
16pg
http://www.iamm.ciheam.org/ress_doc/opac_css/doc_num.php?explnum_id=11370

Pinstrup-Andersen, P. 2011. “The food system and its interaction with human health and nutrition”. 2020 Conference Brief 2011, No.13. Washington, D.C.:IFPRI.
http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/124820/filename/124821.pdf

PwC. 2016 “Food Fraud Vulnerability Assessment and Mitigation: Are you doing enough to prevent food fraud?”
https://www.pwc.com/gx/en/services/food-supply-integrity-services/assets/pwc-food-fraud-vulnerability-assessment-and-mitigation-november.pdf

Robinson, E. and Humphrey, J. 2015. “Better Nutrition for the Poor through Informal Markets” IDS Policy Briefing 89 Publisher IDS

http://opendocs.ids.ac.uk/opendocs/bitstream/123456789/5866/1/PB89_AGID14_BetterNutrition_online.pdf

Smith, L.E. et al. 2012. “Food chain mycotoxin exposure, gut health, and impaired growth: A conceptual framework”. Advances in Nutrition, 2012. 3:526-531. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3649721/

Staatz, J. and F. Hollinger (2016), “West African Food Systems and Changing Consumer Demands”, West African Papers, No. 04, OECD Publishing, Paris. http://dx.doi.org/10.1787/b165522b-en

Townsend, Robert; Jaffee, Steven M.; Hoberg, Yurie Tanimichi; Htenas, Aira Maria; Shekar, Meera; Hyder, Ziauddin; Gautam, Madhur; Kray, Holger A.; Ronchi, Loraine; Hussain, Sarwat; Elder, Leslie K.; Moses, Eugene. 2016. *Future of food : shaping the global food system to deliver improved nutrition and health (English)*. Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/474831468186561685/Future-of-food-shaping-the-global-food-system-to-deliver-improved-nutrition-and-health

.

Websites

African Food Safety Network (AFoSaN)
http://www.africanfoodsafetynetwork.org/

European Union

European Centre for Disease Prevention and Control
https://ecdc.europa.eu/en/home

European Commission
https://ec.europa.eu/food/overview_en

European Commission Directorate for Health and Food Safety (DG SANTE)
https://ec.europa.eu/food/safety_en

European Food Safety Authority (EFSA)
http://www.efsa.europa.eu/

Federal Agency for the Safety of the Food Chain (Belgium; FR)
http://www.afsca.be/consommateurs/

Food Quality & Safety (publication)
https://www.foodqualityandsafety.com/

Food Safety and Quality Assurance- Department of Agriculture, Forestry and Fisheries (DAFF) (South Africa)
http://www.daff.gov.za/daffweb3/Branches/Agricultural-Production-Health-Food-Safety/Food-Safety-Quality-Assurance

Food Standards Agency (UK FSA)
https://www.food.gov.uk/

French Agency for Food, Environmental and Occupational Health & Safety (ANSES)
https://www.anses.fr/en

Global Food Safety Partnership (GFSP)
https://www.gfsp.org/

ISO 22000 family - Food safety management
https://www.iso.org/iso-22000-food-safety-management.html

Ministry of Agriculture and Food (France)
http://agriculture.gouv.fr/english-contents

Safe Food, Fair Food in Africa – ILRI
https://safefoodfairfood.ilri.org/

United Nations

Codex Alimentarius
http://www.fao.org/fao-who-codexalimentarius/home/en/

Food and Agriculture Organisation (FAO)
http://www.fao.org/food/food-safety-quality/home-page/en/

World Health Organisation – Food Safety
http://www.who.int/foodsafety/en/

US Food and Drug Administration

https://www.fda.gov/

US Department of Agriculture – Food Safety and Inspection Service
https://www.fsis.usda.gov/wps/portal/fsis/home

Other websites

Consumer Goods Council of South Africa (CGCSA)
https://www.cgcsa.co.za/

Food Navigator (news)
https://www.foodnavigator.com/tag/keyword/Food/Food%20safety