

# FACT SHEET

# FOOD SAFETY ON THE FARM: GOOD AGRICULTURAL PRACTICES AND GOOD HANDLING PRACTICES – WORKER HEALTH AND HYGIENE

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#### Introduction

Good agricultural practices (GAPs) and good handling practices (GHPs) encompass the general procedures that growers, packers, and processors of fresh fruits and vegetables should follow to ensure the safety of their products. GAPs usually deal with preharvest practices (i.e., in the field), while GHPs cover postharvest practices, including packing and shipping. This fact sheet covers GAPs and GHPs relating to worker health and hygiene.

# **Microbial Hazards**

Contact between fresh produce and fecal material has historically been the cause of most foodborne illnesses. Pathogenic microorganisms can be found on employees, whether they come from an infectious disease, an open wound, or a lack of basic hygiene. Food workers must fully understand and practice proper hygiene, or they risk unintentional contamination of produce, water, and other workers. Operators should recognize and establish hygiene practices that minimize the risk of contamination between fresh produce and sources of microbial hazards.

# **Regulatory Background**

In Haiti, regulations about worker health and hygiene are limited to those concerning general labor law and those describing general rural hygiene. While the first ones describe the safety of employees in workplace, the second ones primarily cover personal hygiene in a rural community. For instance, some of the articles are prohibiting defecation near production area to avoid contamination on the farm.

The Haitian government, through the Ministry of Agriculture, the Ministry of Trade and Industry and the Ministry of Public Health, is making strides but still lacks practical rules on food safety on the farm. Established in 2012 by the Ministry of Trade and Industry, the Haitian Bureau of Standards (BHN, acronym in French) organizes and manages activities related to standardization, certification, industrial metrology, promotion of quality; it also provides technical support. However, Haiti's government has not adopted regulations about food safety on farms.

According to the Agreement on the Application of Sanitary and Phytosanitary Measures, World Trade Organization (WTO) member countries such as Haiti have the right to apply measures necessary to protect human, animal and plant life and health. WTO members can base their national measures on international standards, guidelines and other recommendations adopted by the FAO/WHO Codex Alimentarius Commission where they exist. Haiti can then use international standards set in the Codex Alimentarius by

<sup>&</sup>lt;sup>2</sup>Adapted from UF/IFAS electronic data information source (EDIS) publication #FSHN-1010 by Charles Bency Appolon of the Feed the Future Haiti Appui à la Recherche et au Développement Agricole (AREA) project. Original publication date March 2012. Revised November 2017. Adapted April 2020.





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the Codex Alimentarius Commission (CAC) and the World Organisation for Animal Health (OIE) to establish his own measures.

The Codex Alimentarius basic texts on food hygiene promote the comprehension of how rules and regulations on food hygiene are developed and applied. The general principles of food hygiene cover hygiene practices from primary production through to final consumption, highlighting the key hygiene controls at each stage.

Haiti is also a member of various international standardization networks such as International Standard Organization (ISO), Pan American Standard Commision (COPANT) and CARICOM Regional Organisation for Standards and Quality (CROSQ).

For instance, ISO 22000 describes programs and practices to address the role the production environment plays in producing safe food products. The requirements include, among others, the implementation of good sanitation facilities and good hygiene practices which refer to prerequisite programs.

#### How to Control Potential Hazards

In order to comply with the various international standards, certain prerequisite programs as GAPs are necessary to bolster such broad, scalable provisions. GAPs definitely play an imperative role in reducing potential hazards in food. Implementing personal health and hygiene GAPs will benefit not only a company's financial viability but also his overall produce safety.

#### **Personal Health and Hygiene**

Food production and processing companies should follow good agricultural practices outlined below. All the employees should be considered, whether they have direct contact with the produce or not.

**Establish a training program**. Make sure all employees understand basic sanitation and hygiene principle through a training program, one-on-one instruction, or demonstration, such as of proper hand-washing technique. Level of understanding, follow-up, and depth of training can depend on the responsibilities and requirements of the workers. Put hand-washing posters near hand-washing facilities to reinforce proper handwashing procedures. Ensure that all new employees are trained before they begin working, and that all employees are trained at least once per year or at the beginning of each new packing season. This should be followed up by routine checks to ensure compliance.

- Become familiar with typical signs and symptoms of infectious diseases. Exclude workers who show signs and symptoms of illness from working directly or indirectly with fresh produce. Examples of pathogens that can cause infectious disease through food are Salmonella, Shigella, Escherichia coli O157:H7, and hepatitis A virus. Common symptoms of foodborne disease are fever, diarrhea and vomiting. Instruct employees with illness to tell supervisors. In some instances, workers must be prohibited from working around the product altogether.
- **Provide protection from a lesion**. Do not allow employees to work with fresh produce or equipment if they have a lesion, such as a boil or wound, that cannot be covered up completely. Open sores must be covered with a waterproof dressing.
- **Implement good hygienic practices**. In addition to hand washing, single-use gloves can be an effective hygienic tool. Change gloves after eating, smoking, using the toilet, handling materials other than fresh produce, or any time the gloves are damaged or contaminated. Consider installing automatic faucets and paper towel dispensers to avoid recontamination after hand washing.
- **Implement a dress code**. Employees should wear clean clothes and/or clean protective clothing, such as uniforms or aprons. Protective clothing should be removed prior to using the toilet. Other habits that can minimize contamination of produce by employees include keeping fingernails short, not wearing jewelry, wearing hair restraints or coverings, and not carrying personal items in pockets.

• Ensure good hygienic practices are followed by visitors. Make sure inspectors, buyers, and other visitors to the farm, packing, or transport facilities follow established hygienic practices.

# Training

To help guide training of hygiene practices, some sanitation standards must be considered in training sessions for fresh produce workers. Suggested areas of training are below.

- Make sure workers understand the importance of good hygiene. All workers need to understand how poor personal cleanliness can affect themselves and consumers of the fresh produce they handle. Unsanitary practices can cause illness in both workers and the public.
- Know the importance of hand washing. Pathogens that cause disease are frequently found in feces. Washing hands thoroughly before work and after using the toilet is important for reducing the risk of contaminating fresh produce.
- **Train employees proper hand-washing techniques.** Teach workers how to effectively wash hands and exposed portions of arms. Proper technique includes rigorously rubbing hands to dislodge bacteria, using soap with warm water, cleaning under fingernails and between fingers, rinsing, and drying hands with a single-use paper towel or air dryer. Hand washing should last at least 20 seconds.
- **Provide proper toilet facilities**. Instruct workers to use designated toilet facilities to prevent contamination of fields, produce, other workers, and water supplies. Designate specific areas for other employee activities, such as eating, drinking, smoking, breaks, and storing personal effects.

# **U-Pick Operations and Roadside Stands**

Growers who sell directly to customers or allow customers to pick fresh produce in the field should consider the following health and hygiene GAPs:

- Promote good hygienic practices, such as providing handwashing stations for customers in the field.
- Provide clean, properly supplied, and convenient toilets for customers.
- Promote good handling/processing practices, such as encouraging customers to wash fresh produce before eating.

# References

- 1. Association Francaise de Normalisation (AFNOR). (2020, 2 11). What Is ISO 22000. Retrieved from AFNOR Groupe: https://www.afnor.org/en/insights/food-safety/what-is-iso-22000/
- 2. CARICOM Regional Organisation for Standards and Quality. (2019, 11 22). CARICOM Regional Organisation for Standards and Quality. Retrieved from CARICOM Regional Organisation for Standards and Quality: <u>https://website.crosq.org/index.php/haiti</u>
- 3. EUR- LEX Access to European Law. (2020, 02 11). Accession of the European Community to the Codex Alimentarius Commission. Retrieved from EUR - LEX Access to European Law: https://eurlex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:f84006
- 4. FAO & WHO. (2009). Codex Alimentarius-Food Hygiene Basic Texts Fourth Edition. Rome: FAO and WHO
- Food and Drug Administration. 1998. "Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables." Washington, D.C. U.S. Department of Health and Human Services, FDA. Accessed June 9, 2017. Available at http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ ProduceandPlanProducts/UCM064574.
- 6. Haiti, Département de la Justice. (1963). Code Rural Dr. François Duvalier. Port-au-Prince: Port-au-Prince, Impr. de l'Etat. Accessed on February 4, 2020. Available at <u>https://archive.org/details/coderuraldrfran00hait/page/48/mode/2up</u>
- 7. International Labour Organization; International Finance Corp. (2016). *Guide Pratique Droit du Travail Haitien*. BetterWork Haiti.