

Decision Tree Glossary

Animal Intrusion

Significant evidence of wildlife or other animal activity in produce growing and handling areas. This may include animal feces, urine, tracks, or crop damage that indicate that the produce is at high risk for being contaminated with animal fecal material that may contain human pathogens.

Biofilm

Bacterial layers that are a mixture of different microorganisms held together and protected by glue-like carbohydrates secreted by the microorganisms. These secretions help the microorganisms attach to surfaces and make the microorganisms difficult to completely remove.

Buffer zone

A defined distance from which product should not be harvested. Buffer zones can be established around fecal contamination or around areas of significant animal intrusion to minimize the risk of harvesting produce that has been contaminated.

Cleaning

Physically removing soil and other materials from a surface using a detergent and scrubbing.

Coliforms, Fecal Coliforms, and *Escherichia coli* (*E. coli*)

Coliforms are bacteria that are found in the environment, soil and intestines of warm-blooded animals. Fecal coliforms are a type of coliform that are more specifically associated with human or animal fecal material and are a more accurate indication of the presence of feces than total coliforms. *E. coli* is within the group of fecal coliforms. *E. coli* is considered to be the best species within coliforms to indicate the possibility of fecal contamination.

Colony Forming Unit (CFU)

A measurement of how many bacteria are in a sample based on an analysis that measures how many colonies of bacteria form from the sample or subset of the sample. It is assumed that each colony forms from an individual cell.

Co-management

Practices that minimize the risk of fecal contamination and resulting microbiological hazards associated with food production while simultaneously conserving soil, water, air, wildlife, and other natural resources.

Cross-contamination

Contamination of one food item with microbial pathogens from another food item, water, surface, or other object. Sources of cross-contamination may include harmful pathogens transferred to produce through contaminated wash or irrigation water, improperly applied manure, animal feces, packing lines, worker hands, harvest bins, or trucks.

Cull pile

A pile of discarded plant material or rejected produce. Cull piles may become an attractant to pests or a source of nutrients for the growth of bacterial pathogens.

Detergent

Detergents aid in lifting dirt off of surfaces by reducing surface tension between food surfaces and dirt or other debris. Detergents are used in the cleaning process to remove dirt and debris before a sanitizer is used.

Food Contact Surfaces

Surfaces that come into contact with food. Food contact surfaces are considered Zone 1 and should be prioritized for cleaning and sanitation practices.

Good Agricultural Practices (GAPs)

Any agricultural management practice or operational procedure that reduces microbial risks or prevents contamination of fruits and vegetables on the farm or in the packinghouse.

Good Manufacturing Practices (GMPs)

Standards published in the Code of Federal Regulations (Title 21, Section 110) to ensure the safety of foods by outlining sanitary standards and practices for production and handling.

Hazard Analysis Critical Control Point (HACCP)

A process that identifies critical control points (CCPs) where potential contamination can occur and manages these points as a way of ensuring the safety of the products being produced. HACCP requires processes be monitored at all times and be corrected if the processes exceed the established critical control points. HACCP is used in processing plants but is not appropriate in fresh produce fields because the necessary level of control is not achievable.

Infiltration

The movement of water, and potential contamination, from the dump tank into fresh produce, caused when the dump tank water is cooler than the produce pulp temperature.

Inorganic Fertilizer

A chemical fertilizer of synthetic or mineral origin.

Julian Date

The number of elapsed days since the beginning of the new calendar year. For example, January 23 would be a Julian date of 023 or December 31 would be 365.

Microbial Equivalent to Drinking Water

Absence of total coliforms.

Microorganisms

Bacteria, molds, viruses and other organisms so small that they cannot be seen without the aid of a microscope. Another word for microorganism is microbe. In the case of foods, some microorganisms are beneficial and create desirable food products, while some cause foods to spoil. Some are harmful to humans and can cause sickness and even death; these are called human pathogens.

Mock Recall

An evaluation of a farm's traceability system that requires contacting a buyer to trace a specific lot from your farm.

Most Probable Number (MPN)

An estimate of the number of bacteria in a sample determined through a laboratory analysis.

Nephelometric Turbidity Units (NTU)

A unit of measurement that defines the level of cloudiness or haziness (turbidity) of a solution such as water. NTU can be used to establish a threshold level for when postharvest water should be changed to reduce food safety risks and ensure the effectiveness of postharvest sanitizers.

Foodborne Illness Outbreak

The occurrence of two or more cases of illness resulting from eating or drinking foods contaminated with the same pathogen.

Parts Per Million (PPM)

A way of expressing very dilute concentrations of substances; in this document it refers to sanitizers. One ppm is equivalent to 1 milligram per liter of water (mg/l).

Pathogen

A disease causing microorganism.

Personal Protective Equipment (PPE)

Equipment worn to minimize exposure to a variety of hazards. Examples of PPE include items such as gloves, eye protection, hearing protection devices (earplugs, muffs), hard hats, respirators, and full body suits.

Policy

A statement that explains practices aimed at achieving a specific food safety outcome. Policies are specific to each farm. Policies are valuable to both management and workers because they clarify the farm's food safety goals.

Postharvest Handling

Any practices that occur after harvest including cooling, culling, washing, and packing.

Potable

Meets the Environmental Protection Agency (EPA) drinking water standards including an absence of total coliforms.

Recall

A voluntary or mandatory action taken by growers, packers, or produce distributors to remove potentially contaminated produce from the marketplace and consumer's homes.

Riparian Areas

Interface between land and a river or stream that can provide wildlife habitat.

Runoff

Rainwater, leachate, or other liquid that drains over land, leaves the land surface, and enters unintended areas such as streams, fields, or packing areas.

Sanitize

The treatment of a surface that has been previously washed and rinsed to reduce microorganisms. Various chemical compounds or sometimes very hot water can be used to sanitize surfaces. A surface must be cleaned before it can be sanitized because a dirty surface cannot be sanitized.

Sanitizer

A substance for reducing target microorganisms, designed for use in water or on food contact surfaces.

Scope

To whom or what a Standard Operation Procedure (SOP) applies.

Side-dressing

Application of a soil amendment to the side of the planted crop row so the nutrients are available in the root zone without damaging the plant.

Standard Operating Procedure (SOP)

Describes an activity and how to properly complete the activity. An SOP should specify all the materials needed, the frequency with which each activity is conducted, and identify the employee(s) responsible for the implementation and documentation of the activity.

Template

Pre-developed language and suggestions to aid in the development of a farm food safety plan. Templates must be edited to reflect activities on your farm.

Traceability

The ability to track a food product through the food production and distribution system. In the case of fruits and vegetables, this includes back to the field where it was grown and any subsequent handling, storage, and sale.

Turbidity

The cloudy appearance of water when suspended sediments such as soil are present. The level of turbidity is measured in Nephelometric Turbidity Units (NTU).

Worker

Any person, paid or unpaid, working on a farm producing or handling fresh fruits and vegetables. This includes growers, farm managers, family members, migrant labor, summer help, and packinghouse employees.

Zones

Areas within the produce packing and handling area can be broken out into zones to help determine the likelihood of direct contact with the produce and help prioritize where the biggest contamination risks might exist.

The information in the template food safety plan, SOPs, and recordkeeping logs are examples you can use. They are not intended to be used directly. Tailor each to fit your farm operation and practices. These documents are guidance for risk reduction and for educational use only. These documents are not regulatory and are not intended to be used as audit metrics. These documents are subject to change without notice based on the best available science.