Safe Food Handling Program

Food Banks Canada / Banques alimentaires Canada

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FBBC · food banks of Saskatchewan · Manitoba Association of Food Banks · Ontario Association of Food Banks · Food Banks Quebec · NBAFB ABANB · feed nova scotia · P.E.I. Association of Food Banks · Community Food Sharing Association

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Introduction

Food banks and their agencies operate to meet an important need in our communities. They exist to provide adequate amounts of nutritious food to those who do not have the means to obtain it themselves.

It is very important that the food or products people receive from a food bank is safe to eat. Public health regulations prohibit unsafe food from being sold or offered to the public. Additionally, as many of the recipients are children, seniors and others that may be immune-compromised, special measures need to be taken when distributing food.

The objective of offering the most food possible may differ from the objective of offering the safest food possible. Food received and shared by food banks must be safe to consume or use.

These standards are scientifically based on existing food standards and the Canadian Food Safety Enhancement Program. They have been developed by Food Banks Canada with the assistance of food bank operators, manufacturers who donate food, related associations and government partners, including approval from the Canadian Food Inspection Agency. They are intended to assist food banks and their agencies in providing adequate amounts of safe nutritious food to their clients.

The standards are divided into two sections. The first section consists of the Core Standards, that all food banks and agencies are encouraged to implement. These Core Standards include Environmental Controls which pertain to facility structure and equipment; Operational Controls which discuss people and their activities and Training, which is fundamental to the program. The second section is comprised of modules that deal with commodity and product specific concerns. Food banks and agencies are encouraged to implement the controls outlined in these modules that apply to the services which they offer.

The Core Standards outline the risks that each hazard may provide, the actions taken to control these risks and how one can demonstrate that these risks are minimized. In the Food Safety Standards Modules, information is provided for the specific commodity with consideration being provided for the Receiving, Storage and Repacking of these goods, as well as documents that should be kept for reference. Each section contains sidebars, which highlights key points of the materials contained in that particular section. Details and explanations will be found in the body of the document. References and web links to other Standards and associated documents are provided, in addition to a glossary of food safety and industry terms.

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Safe Food Handling Core Standards

Part 1: Environmental Controls

1. Facility

a. Grounds and Exterior

What is the risk?

Hazards and contaminants can compromise the safety and suitability of food products. Therefore, it is extremely important to be aware of their potential to become negative influences. These hazards can come from various external sources; such as, surrounding properties, the environment and pests. Neighbouring facilities may produce smoke; encourage harbourage of pests, excessive dust, and noxious fumes. Air borne dust is a potential source of contamination. Water that is allowed to accumulate may provide an ideal environment for the growth of bacteria and insects. Shrubs and foliage next to a facility may shelter pests, which can then enter your building. Idling vehicles are a source of fumes.

Actions to take to control the risk:

- Locate the facility in an area that is free from sources of external contamination, which may affect the safety of the food. Avoid industrial areas, whenever possible.
- Keep the exterior of your facility clean and remove all litter promptly. Cut long grass, trim shrubs and remove weeds etc., that are against the building. Do not store materials against outside walls.
- Protect points of entry into the building by:
    - Ensuring doors are tight fitting with well-maintained seals and are kept closed.
    - Screen windows, heating chimneys, air intakes and vents to prevent entry of insects.
    - Keep walls, roofs and foundations in good repair and seal all cracks and crevices to prevent entry of water or pests.
- Eliminate standing water in the outside grounds and parking lots.
- Food products are not to be stored outside.
- Store garbage in covered containers and remove regularly, as garbage is a potential food source for pests, and will attract insects and rodents.

Demonstrate control:

Draw a diagram to illustrate your building's location and the surrounding properties. Include major features, such as fences, doors, vents, exhausts, slabs, garbage bins, recycling stations, and road drains. Diagrams will help identify any areas of concern. Diagrams can be hand drawn and not necessarily to scale.

Maintain your facility. Keep it in good repair. Examine lights and drainage as well.
Be aware of potential sites for harbouring insects and rodents.

Use approved materials for construction.

Check for peeling paint, holes and unprotected openings.
Seal perimeters.

Keep doors and windows closed or screened.

Draw schematic diagram of building and its surroundings.
Use to identify potential areas of concern.

All light fixtures should be protected.

Check Drains

Conduct exterior inspections at least once every 3 months, to monitor the condition of the building and the grounds. Record any problems and document the corrective measures taken and the date they were made.

Inspect exterior at least every 3 months

b. Interior Facility

What is the risk?

The interior of your facility must be maintained in a manner, which protects food products and personnel working in the facility. Vigilance to these risks must be maintained. For example, improperly shielded or poor lighting can create the potential for contamination of food products. Inadequate drainage can provide an environment for microbial or insect contamination by allowing for their growth.

Maintain interior of facility in good condition

Actions to take to control the risk:

Use only approved materials.

Use only materials listed in the "Reference Listing of Accepted Construction Materials and Non-Food Chemical Products" published by the Canadian Food Inspection Agency; or the manufacturer must have a "Letter of No Objection" from Health Canada for interior finishes.

Keep the facility clean.

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- At all times, floors and walls must be kept in good repair and be easy to clean.
- Floors should be sloped towards drains, to reduce risk of standing water.
    - Prevent unsanitary conditions, such as flaking paint, rusty and corroding pipes, and accumulation of food residues, dust and mould.
    - Screen all openings, such as skylights and exhausts, to keep out insects and other pests.
    - Seal all holes, so that they do not harbour pests. Seal all cracks, crevices or openings.

Seal all cracks and crevices

- Keep all doors and windows closed and well sealed (tight –fitting) to prevent rodent entry.
- Roofs, overhead pipes, or suspended fixtures must be clean and not leak or drip condensation.
- Ventilation should be able to remove airborne contamination, odours, smoke, and excessive moisture. Use filters when necessary.
- Provide enough light to allow personnel to do their jobs properly. Lighting in areas where food is inspected, must be of adequate intensity and not alter the natural appearance of foods. Add additional portable lights if required. See appropriate regulations (i.e. provincial, municipal, etc.) for applicable light intensity for food preparation and storage areas.
- Lights should be shielded or shatterproof where there is unpackaged product, prep areas, etc.
- Drains must be of adequate size to prevent liquid pooling on floors.
- If you prepare food, drains must be equipped with backflow preventers and there should not be any cross connections between drainage or waste

Provide enough light.

Use shielded light fixtures.

Provide proper ventilation and adequate drainage

systems and potable water lines.

Demonstrate control:

- □ Examine the materials used in construction. Document that they are approved for use and do not present a source of contamination.
- □ At least once every three (3) months conduct inspections to ensure that:
  - Food and material handling equipment is in good repair and is clean and suitable for use.
  - Lighting levels are of an adequate intensity for the jobs conducted in the area.
  - Air and water filters are changed or cleaned regularly.
  - **Drains are cleaned and sanitized regularly.**
- □ Record any problems and how and when they are corrected.

c. Sanitary Facilities

What is the risk?

Personal hygiene is essential in the prevention of cross contamination. Sanitary facilities, including restrooms, must be provided, so that personnel can maintain good personal hygiene.

Actions to take to control the risk:

- Lunches and personal effects must be stored in areas specifically designated for personnel.
- The personnel lockers and lounge/eating areas must be kept clean and in an orderly condition.
- Lockers should be raised off the floor for ease of cleaning beneath them.
- Food items must not be stored in the locker rooms to discourage harbourage of pests, such as rodents or insects.
- Care must be taken to ensure that restrooms are sanitary.
- Ensure that there is the appropriate number of toilets to meet the needs of personnel on site.
- Handwashing facilities must have adequate hot and cold water, soap dispensers, disposable/single use towels with covered garbage cans for proper disposal.
- Signage should be readily visible near these handwashing facilities, advising personnel to wash their hands before leaving the washroom.
- Sanitary napkin disposal containers must be available in women's washrooms.
- If possible, doors that automatically close should be used.

Demonstrate control:

- □ Conduct daily inspections to monitor the condition of washrooms, change rooms and lunch rooms. Check that all areas are properly cleaned and maintained and have adequate supplies. Record observations and how and when problems are corrected.

d. Water and Ice

What is the risk?

Water is a key component of any food handling facility. Not only is it used as an ingredient in the preparation of food products, but it is used in handwashing, sanitation and cleaning of the premises and food preparation utensils and equipment. Another important use is as ice for food preservation and as steam in your facility. Contamination may occur if the water used is not potable (suitable for drinking) or if the water is not appropriately stored.

Actions to take to control the risk:

- Use only potable (drinking) water in the facility. It must come from an acceptable source and be tested periodically to ensure that it meets the "Guidelines for Canadian Drinking Water Quality": 6th edition, Health Canada http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/guidelines_sixth-rec_e.html
- Ensure that there are no physical cross connections between potable water pipes and non-potable water pipes. Non-potable water can be used for fire control and other such activities.
- Follow water advisories, if in effect.

Demonstrate control:

- □ At least once a year, confirm that the water used in the facility meets "Guidelines for Canadian Drinking Water Quality", by contacting your municipality or landlord (if on landlord's well) or conducting microbiological testing (if on own well). See and comply with Provincial requirements if on own well.
- □ Monitor the cleanliness of water and ice storage facilities at least weekly. Record your observations and note actions taken to correct any problems.

Water must be drinkable

Follow water advisories if they are in effect.

Confirm that your water is drinkable and stored properly at least once per year.

Check that water and ice storage facilities are clean at least weekly.

2. *Equipment and Utensils*

a. Design and Installation

What is the risk?

It is important to use equipment and utensils, which are appropriate to the preparation of foods, their packaging materials and to all food contact surfaces. Poorly maintained or deteriorating equipment (e.g. cracked, pitted, flaking) may lead to the introduction of physical hazards (e.g. loose bolts, washers, nuts, metal fragments) and can be hard to clean, which may harbour microbial contamination. Attention should be given to storage bins, etc., to ensure that they are made of smooth, non-corrosive and non-absorbent materials. Equipment, such as refrigerators and freezers, must operate correctly and maintain proper temperatures. Food grade materials must be used to reduce the risk of contamination, which may leach into food products.

Actions to take to control the risk:

- Use equipment designed for food applications (e.g. accessible for cleaning, maintenance and inspection).
- Equipment surfaces that come into direct contact with food should be:
  - made from smooth, non-corrosive, non-toxic materials.
  - free from pitting, cracks or crevices.
  - easily cleanable and withstand repeated cleaning.
- All food contact surfaces must be food grade. Approved materials can be found in the "*Reference Listing of Acceptable Construction Materials, Packaging Materials and Non-food Chemical Products*" published by the Canadian Food Inspection Agency (http://www.inspection.gc.ca/english/fssa/reference/refere.shtml) or the manufacturer must have a "Letter of No Objection" from Health Canada.
- Utensils used for handling allergens (e.g. peanut butter, products containing nuts), must not be used for handling other food products, unless cleaned and sanitized between uses. Colour- coded containers are one way to ensure that they can be readily identified.
- Equipment used to handle inedible material, such as garbage, must not be used to handle food intended for consumption.
- Containers for garbage and other inedible material must be covered, identifiable and leak proof. Colour-coded containers are one way to ensure that they can be readily identified. Exception: Containers for recyclable packaging material do not need to be covered.
- Install equipment away from the walls so there is sufficient room for cleaning, maintenance and inspection. Leave 18" gap around outside walls.
- Refrigerators (coolers) must maintain the food at 4°C (40°F) or colder.
- Freezers must maintain the food at temperatures of -18°C (0°F) or colder (i.e. frozen solid).

Equipment and utensils must be suitable for use with food

Food contact surfaces must be food grade approved.

Use separate utensils for handling allergens

Garbage containers must be covered and leak proof

Coolers and freezers must maintain proper temperatures

Leave 18" gap around outside walls.

Demonstrate control:

- □ Ensure that you have a working operational thermometer.
- □ Temperatures of refrigerated and frozen product should be checked and recorded twice daily, once at the beginning of the day and once later in the day. Record your observations and note actions taken to correct any problems.
- □ Monitor the condition of all equipment and food contact surfaces and replace as necessary.

Part 2: Operational Controls

1. Personnel Practices

a. General Practices

What is the risk?

Contamination can be caused by people and their actions.

Poor personal hygiene can contaminate food, ingredients, packaging materials and food contact surfaces. Bacterial contamination can occur from illness, poor personal cleanliness, hygiene, and poor work habits. Introduction of foreign objects, such as jewelry, can lead to injury and personal loss.

Actions to take to control the risk:

Follow good hygiene practices.

- Ensure personnel follows effective hand washing techniques.
- Personnel must refrain from eating, drinking, smoking, spitting or chewing gum in food preparation and handling areas.
- Food and beverages for personal consumption should not be allowed in food preparation or handling areas.
- Ensure uniforms (where provided) or clothing are clean and in good repair (e.g. no loose threads, holes).
- Ensure all staff and volunteers are wearing clean close-toed footwear
- Ensure hair is suitably confined and beard restraints are worn in food preparation or handling areas.
- Jewelry, nail polish, false eyelashes or nails should not be worn, as they can become a physical or microbiological hazard.
- Gloves must be worn when handling reclamation goods.
- Gloves are not a substitute for proper hand washing. Disposable gloves, if worn, should be clean.
- Wash hands before putting gloves on.
- Replace all dirty or torn gloves. .
- Lunches and personal effects (coats, sweaters) must be stored in separate, designated areas, such as locker rooms or break rooms.

Demonstrate control:

Monitor staff and volunteers.
Record observations.
Log corrective actions taken.
Keep training programs current.

- □ Monitor and document personal hygiene practices. Record your observations and note actions taken to correct any problems.
- □ Update training programs on a regular basis based on new information and results of staff and volunteer monitoring.

b. Hand Washing

What is the risk?

Hands can be the greatest source of contamination. Hair, skin and other body parts are covered in bacteria. Proper hand washing can reduce the opportunity for bacteria to contaminate food products and food contact surfaces. It can also reduce the risk of contamination by allergens.

Hands are a source of contamination.

Actions to take to control the risk:

Ensure staff and volunteers wash their hands and/or change gloves:

- before beginning work
- before starting a new activity
- before putting on gloves
- after coughing, sneezing or blowing their nose
- after touching their face, hair, mouth or nose
- after smoking or eating
- after any break
- after handling raw material, garbage or performing maintenance or sanitation activities
- after picking up something from the floor
- after any absence from their work station
- after any break
- after visiting the washroom
- after any action that could lead to contamination of their hands

Wash hands frequently.

Follow proper hand washing procedures as listed below:

1. Wet your hands
2. Add soap
3. Scrub back of your hands, wrists, between fingers, under fingernails for 20 seconds
4. Rinse
5. Dry hands using a single use towel or hot air drier
6. Turn off the taps with a paper towel and dispose of the paper towel in the designated garbage can

Follow proper hand washing procedures.

Demonstrate control:

- □ Train employees in proper hand washing procedures.
- □ Ensure that there are proper hand washing facilities, which include warm water, soap and single use paper towels.
- □ Monitor and document hand washing practices. Record your observations and note actions taken to correct any problems.

Train employees.

Monitor hand washing practices.

c. Illness and injuries

What is the risk?

Communicable diseases are illnesses that can be transferred from one person to another and through people to food products. Examples include Tuberculosis, Salmonellosis, Norovirus, Shigellosis, Hemorrhagic colitis and Hepatitis A. Vomiting, diarrhea, stomach cramps and flu-like symptoms are the most common symptoms associated with food borne illness.

In addition, open cuts or sores that are not properly covered, can be a source of microbiological contamination.

Actions to take to control the risk:

- Anyone exhibiting the following symptoms, must report them to a supervisor:
  - fever
  - diarrhea
  - vomiting
  - sore throat with fever
  - excessive coughing or sneezing
  - boils or cuts
  - discharges from ears, nose or eyes
  - jaundice (yellowing of eyes and skin)

- Personnel with cuts or open wounds must cover them with waterproof bandages or coverings and changed frequently, so that they remain clean and intact. Cover all bandages with a disposable glove.
- All communicable illnesses must be reported to a supervisor and this information must be kept confidential.
- Provide personnel with communicable diseases, with alternate work, so they do not handle food, ingredients, packaging materials or food contact surfaces or send personnel home until they are deemed healthy enough to return to work.

Demonstrate control:

- □ Monitor personnel for evidence of illness or behaviour that is indicative of illness. Record your observations and note actions taken to correct any problems.
- □ Develop a list of activities that can be performed by personnel who exhibit symptoms of illness.

Prevent contamination by food borne illnesses.

Illnesses should be reported to a supervisor.

Provide alternate non food contact work to those who are ill.

Cuts and wounds must be covered.

Monitor personnel.

2. Handling Food

a. Transporting

What is the risk?

There is always a potential for contamination to occur during transportation. Poorly maintained vehicles, damaged pallets and packaging, may introduce contaminants to the foods, the vehicles are transporting... Watch for pests, such as rodents and insects, as they could enter your facility via trucks and other vehicles. Mixed loads, such as unpackaged foods, chemicals or animals, which are being transported by trucks and other vehicles may contaminate the foods and the facility. Food spoilage may occur if they are not transported in temperature-controlled vehicles.

Dirty vehicles can contaminate food products.

Improper temperatures can cause food to spoil

Actions to take to control the risk:

- Train employees in proper handling procedures.
- Separate receiving and shipping areas from any repacking areas.
- Inspect vehicles for soundness, cleanliness, off-odours, and l evidence of live or dead insects and rodents.
- Arrange loads so that:
    - Household chemicals, health and beauty products are adequately separated from food products.
    - Raw food is separated from cooked foods.
    - Allergen containing products are separated from non-allergenic products.
- Pre-cool vehicles prior to loading of temperature sensitive products.
- Check that proper temperatures are maintained. Use vehicles that are capable of keeping the proper temperatures for refrigerated and frozen products. Transport time for perishable food should not exceed one hour, unless transported in a refrigerated vehicle.
- Properly maintain equipment, such as forklifts, carts, trolleys, baskets, bins, used for transporting products.

Inspect vehicles.

Maintain proper temperatures while transporting food products.

Keep food and non-food products separate.

Keep raw and cooked food separate.

Keep allergens separate.

Demonstrate control:

- □ Monitor employees handling food products and materials.
- □ Monitor the condition and temperature of foods received and shipped. Record your observations and note actions taken to correct any problems.
- □ Monitor the condition of trucks delivering and picking up food products and other materials. Record your observations and note actions taken to correct any problems.

Monitor the condition of all vehicles.

Monitor and record temperatures

b. Receiving

What is the risk?

Materials that are not properly received, handled and stored, can be a source of contamination. In order to reduce the risk of contamination, materials must be received, handled and stored, at the appropriate temperature, in clean, undamaged containers. Rejecting unacceptable products is necessary, in order to decrease the risk of severe health consequences to clients.

Actions to take to control the risk:

- Visually inspect vehicles for cleanliness, off-odors, and evidence of live or dead insects and rodents, before unloading products. Do not unload a vehicle that appears to be unclean.
- Check temperatures of products.
    - Refrigerated foods should be between 0°C and 4°C (32°F and 40°F).
        - Inspect product if between 5°C and 7°C (41°- 45°F) and move to refrigerated storage immediately.
        - Reject products if warmer than 7°C (45°F).
    - Frozen foods must remain frozen (-18°C or colder) (i.e. frozen solid).
        - Inspect product if between -15°C and -17°C (1°- 5°F).
        - Reject products if warmer than -5°C (23°F) (i.e. not frozen solid).
        - Note: Nova Scotia regulations – frozen at 0° C is acceptable.
    - Minimally processed fruits and vegetables and sprouts must be stored at temperatures between 0°C and 4°C.
    - During cold weather, protect products that may be harmed if frozen.
- When frozen food is received with an ambient or box temperature of -12° C or warmer, and/or cases are damaged or badly soiled, the supervisor should be notified to provide special handling instructions. The deviation should be documented with appropriate records and authorization.
- Inspect and sort all donations.
    - Identify unlabelled items or discard them.
    - Isolate damaged or salvageable lots until inspection and sorting occurs (see Module 10: Reclaimed Products).
    - Recondition damaged products before placing in regular storage.
        - Immediately place refrigerated and frozen foods in the designated areas.
        - Check for expiry dates.

Recondition damaged products.

Monitor all vehicles

Check code dates.

Keep records of all donations.

Poor storage practices can cause spoilage and contamination of food products.

Keep food and non-food item (cleaners, chemicals) separate.

  - Remove damaged cans (as described in Module 1).
  - Discard all leaking or broken containers.
  - Discard products deemed unsatisfactory.
  - Reject product that has been opened and/or partially used.
  - Only accept product from inspected sources. Do not accept home canned/preserved/processed products.
- Clean and sanitize outer surfaces of any packaged material that has come into contact with unacceptable products (e.g. leaking and damaged packaging, food items that come from an uninspected premise) (as described in Module 10).

Demonstrate control:

- □ Keep detailed and accurate records of donated products. Details should include donor's name and address, date and time of receipt, product temperature, date of production, expiry or best before date, reason for donation and any quality or safety issues.
- □ Monitor the condition, including temperatures, of all arriving vehicles and product. Record your observations and note actions taken to correct any problems.
- □ When products are received, check code dates and shipping documents.

Keep food products at least 6" off the floor.

Ensure proper temperatures are maintained.

Keep all containers clean. Discard if damaged.

Keep 18" clear around exterior walls.

Rotate stock.

Discard damaged pallets.

Inspect storage areas.

Measure and record temperatures of coolers and freezers.

c. Storing

What is the risk?

Improperly stored food can be a source of contamination. Poor control during receiving and storage will have greater implications throughout the facility, so good control here will minimize safety risks. Products can deteriorate due to improper temperature control and poor stock rotation. In addition, foods must be kept at temperatures that will minimize the growth of bacteria. Proper stock rotation will limit spoilage and the potential for infestation by pests. Incompatible materials (e.g. chemicals, supplements, and health and beauty products) must be stored separately. Contamination can occur through drips, spills, leakage, sprays and dirt.

All products and their ingredients must be clearly identified.

Actions to take to control the risk:

- Keep food and non-food items separate, in designated storage areas.
- Keep storage areas clean.
- Keep an 18" clear space around all exterior walls whenever possible.
- Rotate stock, so that the oldest items (or those with the closest best before date) are used first (First in- First out). Code or tag items, with receiving dates and best before dates, for ease of identification.
- Keep all food, ingredients and packaging materials covered.
- Store food in clean containers designed for food storage. Clean stainless steel pans, aluminum foil pans and food grade plastic containers may be used.

- Store products at appropriate temperatures and humidity:
    - Refrigerators must maintain product at an internal temperature of 4°C (40°F) or colder. Place a thermometer in a plastic container of water to monitor refrigerator temperature.
    - Freezers must be -18°C (0° F) or colder and maintain product frozen solid.
    - Non-perishable foods should be stored between 10° C and 21°C (50° – 70° F).
- Raw food needs to be stored on shelves that are below cooked and prepared foods or on a separate footprint to minimize the possibility of cross contamination.
- Store products off the floor (6 inches) by using pallets, shelving or other means (4 inches in Quebec). Note: Many pallets are not 6 inches tall but are accepted by most jurisdictions, as long as they are transient and not used for permanent storage.
- Cleaners, household chemicals, liquid chemicals, and petroleum products, need to be stored in a separate designated area to minimize cross contamination of food, packaging materials and food contact surfaces. Access to this area should be controlled.

Pallets and Containers:

- Discard any pallets and containers that are broken and cannot be repaired.
- Keep pallets and containers clean.

Demonstrate control:

□ Monitor the condition of all storage areas. Record your observations and note actions taken to correct any problems.

□ Monitor the temperature of all refrigerated and frozen product a minimum of twice daily. Record your observations and note actions taken to correct any problems.

d. Labelling

What is the risk?

Proper labelling is essential to identify a product and its ingredients. Absence of labels or incorrect labels could be misleading and cause potential health hazards. It is important to minimize potential health hazards, such as any ingredients, which may cause allergenic reactions, and lot coding is critical, if there is ever a need to have a product recall. Date codes will assist in determining the shelf life of a product.

Actions to take to control the risk:

- Ensure all products are correctly labelled and accurately represent the product.
- Labels at a minimum should indicate:
    - Common name of product
    - List of ingredients to highlight allergens
    - Storage instructions (if not shelf stable)
    - Best before date, if less than 90 days shelf life

    - Donor/distributer/manufacturer name and address
- Do not use any product that does not have a complete label.
- Identify and label any unlabelled products.
- Attach stickers with product name, any allergens in the list of ingredients and any applicable date coding to “shiners”, “bright stock” or repackaged foods.
- When in doubt, throw it out.

Labelling must include:
the name of the product
a complete list of ingredients
storage instructions
best before dates
manufacturer

Apply labels to any unlabelled or repackaged product.

Demonstrate control:

- □ Monitor the labels on all arriving products.
- □ Monitor labelling of unlabeled foods.
- □ Monitor labelling of repackaged foods.
- □ Record your observations and note actions taken to correct any problems.

e. Allergens

Check all products and apply labels if necessary.

What is the risk?

Many people have allergic responses to certain food products. These responses can range from mild skin irritations to anaphylaxis (life-threatening severe allergic reaction). Proper control of allergen-containing foods is required to prevent contamination of non-allergen containing products. In Canada, the ten Priority Food Allergens are:

- peanuts
    - other names include: Arachide, Arachis oil, Beer Nuts, Cacahouète/cacahouette/cacahuète, Goober nuts, goober peas, Ground nuts, Kernels, Mandelonas, Nu-Nuts™, Nut meats, Valencias
- tree nuts (almonds, brazil nuts, cashews, hazelnuts (filberts), macadamia nuts, pecans, pine nuts, pistachios, walnuts)
    - other names include: Anacardium nuts, Calisson (a marzipan-like candy made from almonds), Marzipan (almond paste), Nut meats, Pinon, Queensland nut (macadamia)
- sesame seeds
    - other names include: Benne/benne seed/benniseed, Gingelly/gingelly oil, Seeds, Sesamol/sesamolina, Sesamum indicum, Sim sim, Tahina, Tahini, Til, Vegetable oil
- milk and milk products (including casein, whey)
    - other names include: Ammonium/calcium/magnesium/potassium/sodium caseinate, Casein/caseinate/rennet casein, Curds, Delactosed/demineralized whey, Dry milk/milk/sour cream/sour milk solids, Hydrolyzed casein, hydrolyzed milk protein, Lactalbumin/lactalbumin phosphate, Lactate/lactose, Lactoferrin, Lactoglobulin, Milk derivative/fat/protein, Modified milk ingredients, Opta™, Simplesse® (fat replacers), Whey, whey protein concentrate.

Allergens can be life threatening.

The top allergens in Canada are;
peanuts
tree nuts
sesame seeds
milk and milk products
eggs
fish
shellfish
soy
wheat
sulfites

- eggs, albumin
    - other names include: Albumin/Albumen, Conalbumin, Egg substitutes, e.g., Egg Beaters®, Globulin, Livetin, Lysozyme, Meringue, Ovalbumin, Ovoglobulin, Ovolactohydrolyze proteins, Ovomacroglobulin, Ovomucin, ovomucoid, Ovotransferrin, Ovovitellin, Silico-albuminate, Simplesse®, Vitellin
- fish (including crustaceans, such as crab, crayfish, lobster and shrimp
- shellfish (e.g. clams, mussels, oysters, scallops)
- soy and products containing soy protein
    - other names include: Edamame, Kinako, Kouridofu, Miso, Mono-diglyceride, Natto, Nimame, Okara, Soya, soja, soybean, soyabeans, Soy protein (isolate/concentrate), vegetable protein, Tempeh, Textured soy ,flour (TSF), textured soy protein (TSP), textured vegetable protein (TVP), Tofu (soybean curds), Yuba
- wheat and products containing wheat protein (including gluten)
    - other names include: Atta, Bulgur, Couscous, Durum, Einkorn, Emmer, Enriched/white/whole wheat flour, Farina, Gluten, Graham flour, high gluten/protein flour, Kamut, Seitan, Semolina, Spelt (dinkel, farro), Triticale (a cross between wheat and rye), *Triticum aestivum,* Wheat bran/flour/germ/starch
- sulphites

These allergens have been shown to account for more than 95% of severe adverse reactions related to food allergens.
For further information, consult the Health Canada website:
http://www.hc-sc.gc.ca/fn-an/securit/allerg/index_e.html

Actions to take to control the risk:

- Train staff and volunteers in proper handling procedures.
- Ensure that all allergen-containing products are clearly labelled.
- Keep allergen-containing products separate from non-allergen containing products. Ensure that any stored ingredients are labeled with appropriate allergen advisory and risk as noted above.
- Do not accept any home made products, as the allergen risk is uncontrolled.
- Use designated equipment, or clean and sanitize between uses (such as scoops or spoons) for handling allergen-containing products, such as peanut butter. These implements should be clearly identified (e.g. colour coded).
- Clean and sanitize all food contact surfaces after handling allergen-containing products.
- Always err on the side of safety and destroy product if in doubt.

Demonstrate control:

□ Monitor the handling, storage and use of allergen-containing products. Record your observations and note actions taken to correct any problems.

Do not repack peanut butter and other nut products.

Keep allergen containing products separate.

Use designated utensils for handling allergens. Check to see that they are properly labelled.

3. Cleaning and Sanitation

What is the risk?

Food residues and dirty and unclean surfaces will lead to product contamination. Chemical residues and allergens that are not properly removed from food contact surfaces can also cause contamination. .

Improperly cleaned surfaces and containers can lead to contamination.

Actions to be taken to control the risk:

- Develop an adequate cleaning and sanitation program that includes all equipment, utensils, walls, ceilings and food contact surfaces. All areas of the facility (food preparation areas, salvage, warehouse, maintenance areas, washrooms, break rooms, and locker rooms) should be included.
- Develop your program by asking the following questions:
    - What is to be cleaned?
    - Who is to do the cleaning?
    - Does any equipment need to be disassembled?
    - How is it to be cleaned?
    - How often is it to be cleaned?
    - What chemicals are to be used and at what concentrations?
    - The temperature of the water (hot, warm) to be used?
    - What protective equipment is required (e.g. gloves)?
    - What method is to be used for cleaning and sanitizing activities (e.g., mop, scrub brush, foam)?

Develop a cleaning program.

Document this program in a manual.

- Ensure that a proper sequence of cleaning is employed:
    1. Protect exposed food.
    2. Remove visible dirt by using a broom, squeegee etc. and disassemble equipment if required.
    3. Rinse surfaces that are to be cleaned.
    4. Apply a detergent/cleaning agent for sufficient time to loosen soil; use mechanical aids, such as brushes, if required.
    5. Rinse with potable water to remove residues and loosened dirt.
    6. Inspect for cleanliness and clean again, if required.
    7. Apply sanitizer if required.
    8. Allow surfaces to air dry.
    9. Record activities.

Demonstrate control:

- □ At regularly scheduled intervals (at least once a year, more is better), review your cleaning and sanitation program to ensure that it is effective.
- □ Monitor the cleanliness of your facility. Record your observations and note actions taken to correct any problems.

Review your cleaning program to make sure that it is effective. Record measures taken.

4. Equipment Maintenance and Control

The range of equipment used can include:

- meat slicers, cutters, knives, ovens, hot holding temperature units, blenders, heating vessels, hot tables
- utensils such as spoons, ladles, tongs
- material handling equipment; such as forklifts, hand trucks, wheelers, carts
- monitoring equipment;such as thermometersand gauges for refrigerators, freezers and ovens
- measuring equipment, such as scales.

What is the risk?

Improperly maintained equipment may break down and result in product contamination. Pieces of equipment may fall into the food preparation zones, creating both a health and safety issue. Improperly calibrated equipment, such as thermometers, may give inaccurate results and may lead to the growth of microorganisms, a potential source of food borne illnesses.

Actions to take to control the risk:

- Key equipment, whose failure may result in contamination, should be identified. A maintenance schedule should be developed to ensure that failure does not occur.
- Monitoring and measuring equipment (e.g. thermometers and scales) must be identified; accuracy must be verified and calibrated as needed, to ensure that they are working correctly. A monitoring log should be kept and signed to ensure that these checks are done. Inexpensive household style thermometers, such as those used to monitor refrigeration and freezer temperature, should be replaced every 3 years or more frequently, as needed.

Demonstrate control:

- □ Create a list of all equipment and develop a preventative maintenance program.
- □ Identify all gauges, controllers and monitoring devices. Identify the frequency and procedures used, to ensure that they are working correctly. Record the results of verification activities.

Poorly maintained equipment can lead to contamination.

Equipment that is not properly calibrated can lead to errors.

Check equipment to make sure it is working correctly and is not damaged.

Check to see that equipment is measuring correctly.

Identify all equipment used and the frequency that they should be checked.

Maintain a log to ensure checks are being done.

5. Pest control

What is the risk?

Pests, such as insects, rats, mice and birds can contaminate food products, packaging and food contact surfaces. Rats and mice can gnaw through packaging and can consume foodstuffs, defecate and urinate on products and equipment. Insects can consume and lay their eggs in foodstuffs, such as meat, produce, grains and produce and carry microorganisms and birds can defecate on products. Care must be taken to use the correct pest control measures, as chemicals used to control pests may be toxic to humans.

Actions to take to control the risk:

- Draw a diagram of your facility and mark all pest control devices.
- It is highly recommended using a licensed pest control operator.
- Ensure that Pest Control operators are licensed to use pest control chemicals.
- Use only pest control chemicals approved for use in a food handling facility. Ideally, the chemicals should be stored off site and with the Pest Control Operator. Any pest control chemicals stored on site, must be stored in a locked chemical cabinet that is approved for that use.
- Develop a pest control program that eliminates pests or restricts their entrance to the facility. These should include the following:
    - Ensure the grounds are clear of garbage, debris, and recycling materials.
    - Be aware that outside storage materials (e.g. old/tramp pallets, empty drums, building materials, recycling) provide pest harbourage. If you must store such items outside, then store off the ground and minimum 20 ft away from the facility.
    - Ensure any unnecessary articles, including old unused equipment, which may harbour pests are removed from the facility. Within the facility, keep a clear perimeter of approximately 18" from all outside walls, whenever possible.
    - Food particles and waste will attract pests. Ensure that the interior of the facility is kept clean.
    - Keep grass and shrubs trimmed to discourage breeding, harbouring and feeding of pests.
    - Standing water is known breeding grounds for insects; ensure any standing water is eliminated
    - To prevent pests from entering the facility ensure all windows, ventilation panels and roof vents are equipped with screens
    - Keep doors closed, when not in use. Ensure all doors have good seals. (Mice can enter through holes down to a ¼ of an inch.)
    - Eliminate any nesting spots for birds.
    - Ensure all garbage is covered.

Pests are a source of contamination.

A pest control program should prevent pests from entering the facility.

Use pest control devices where required.

- Use pest control devices where appropriate
    - Install bait stations on the exterior of the facility. Ensure that they are tamper resistant, locked, labelled, and secured at 50-foot intervals around the exterior of the facility.
    - Install Ketch-alls (live traps) to trap rodents inside your facility. Do not use bait traps inside the facility. Snap traps may be used at the discretion of the licensed pest control operator. Ensure that the traps are located on both sides of entryways. It is recommended they be labelled with a sign on the wall indicating their location.
    - Install UV lights and glue boards for flying insects. Ensure that they are more than 15 feet from open product areas. Do not use insect-o-cutors, as they spread insect parts through the air. UV lights must be placed, so as not to draw in or attract insects from the outside.
- Document your pest control program and include details on:
    - Procedures
    - Frequencies of monitoring (Ketch-alls should be inspected weekly and other devices once per month, at a minimum)
    - Chemicals approved for use and their application
- If you see evidence of any pest activity, conduct an investigation and fix any problems. Contact a licensed Pest Control Operator immediately.
- Wear disposable gloves when disposing of mice and sanitize the ketch-all before resetting.

Demonstrate control:

- □ Review your pest control program regularly and check for any trends. Keep a signed log to ensure checks have been made. Rodents generally seek warm places in the fall.
- □ If there are pest control devices missing or any do not work, replace them or have them fixed.
- □ If you use an outside contractor to handle pest control, monitor their activities on a regular basis **and ensure that you complete any corrective actions required.**

Document your program. Keep log of inspections and trap findings.

Use only approved pest control chemicals.

Do not store pest control chemicals in the facility.

Keep log of pest control findings to note any trends.

Check pest control devices to see if they are working properly.

Dispose of any pests carefully.

6. Recall

What is the risk?

Food recalls can be triggered by the presence of a biological, physical or chemical hazard or allergens present in a food. Control of these products is crucial in minimizing the risk to consumers.

Actions to take to control the risk:

- Develop a recall program that sets out:
  - key personnel responsible for the implementation of a recall and their roles, responsibilities and contact information.
  - procedures to identify, locate and control all products as any product may be recalled.
  - procedures to contact CFIA and other regulatory bodies in the event of a recall
  - procedures to investigate the potential for other products to be affected.
  - the ability to identify clients, who received affected products and methods to contact these clients (traceability).
  - procedures to investigate any product complaints from clients.
  - procedures to test the effectiveness of a recall by conducting a mock recall at least once per year.
- Train staff and volunteers in the procedures for recalling products from clients.
- Sign up for email notification of food recalls and allergy alerts from CFIA: http://www.inspection.gc.ca/english/util/listserv/listsube.shtml?foodrecalls_rappelsaliment

Demonstrate control:

- □ Review and test your recall program at least once a year.
- □ Document your review and any corrective actions required.
- □ Maintain contact information for all donors, customers, and clients.
- □ Ensure your records allow full traceability from food source out to clients.

It is important that you be able to locate and bring back any products that are the subject of a recall.

A recall program should:
have defined responsibilities
procedures to identify locate and control food products
identify affected clients
be tested to make sure it is effective.

Sign up for email notifications of recalls from CFIA.

Review and test your recall program.

Part 3: Training

What is the risk?

People have the greatest impact on food safety through their personal hygiene and work practices. All personnel, including staff, volunteers, visitors and clients, must adhere to standards and established procedures, to protect the food supplies from contamination. Hazards can be introduced due to lack of training and failure to follow proper procedures. Training increases awareness of potential hazards and the responsibilities of each person, in minimizing hazards throughout the operation.

Improperly or poorly trained staff and volunteers can lead to product contamination.

Actions to take to control the risk:

- Conduct training sessions (orientation and refresher) for staff and volunteers.
- Training should be done for all new employees and volunteers.
- Include topics in:
    - personnel practices, including hand washing, communicable diseases, injury
    - shipping, receiving, handling, including cooking if done and storage
    - cleaning and sanitation
    - calibration and maintenance of key equipment
    - use of chemicals
    - pest control
    - recall
- Monitor personal hygiene practices.
- Monitor work procedures
- Refresher training should be done at least annually or when procedures or policies change.
- Keep technical information up-to date.

Conduct training sessions for all staff and volunteers that include: personnel and operational practices

Demonstrate control:

- □ Develop and implement an orientation program for staff and volunteers. This program should include hand washing, personal hygiene and good food handling practices.
- □ Conduct refresher training at least once a year or when new activities are added. Note: food handler training programs are provided by most municipalities for a reasonable fee and/or the training materials can be used.
- □ Keep records of all training. The date of training, topics covered, name and qualifications of trainer and name(s) of participants should be included.
- □ Monitor and document personal hygiene practices. Record your observations and note actions taken to correct any problems.

Conduct training and refresher training for all staff and volunteers. Keep records.

Food Safety Standards Modules

Introduction

These modules are to be used in conjunction with the Safe Food Handling Core Standards. Certain products require special handling, due to the risks associated with them during handling, distribution, storage and use. These will be detailed in the following sections.

Generally, products can be separated into risk categories:

- Non-perishable Foods (lowest hazard)
    - Items that do not require refrigeration, such as pre-packaged food, canned or jarred foods, and dry goods (flour, sugar, pasta).
- Low Hazard Perishable Foods
    - Uncut raw fruits and vegetables.
    - Breads and pastries (without cream or meat fillings).
- Potentially Hazardous Foods
    - Some products are more likely to cause a food borne illness. These are referred to as Potentially Hazardous Foods. They support the rapid growth of bacteria and other microorganisms. They can be of plant, animal or synthetic origin and may be raw or processed. Many potentially hazardous foods are ready-to-eat.
    - Dairy products, eggs and egg products, tofu products, meat, poultry, fish and seafood and their products, tofu and other soy protein foods, sprouts and sprout seeds, melons.
- High Risk Foods
    - Products canned or processed in home environments or food, from any source, that has been opened and/or partially used.

Some commodities will appear in two or more risk categories, depending on their level of processing and the ingredients they contain. For example, bakery products containing meat or dairy ingredients are considered potentially hazardous and require refrigeration, while most breads and buns are low hazard perishable foods, as they do not require refrigeration, but can easily mould. Uncut raw fruits and vegetables are low hazard perishable foods and do require refrigeration, whereas precut fruits and vegetables are potentially hazardous foods.

Module 1: Dry goods and canned goods

Dry goods and canned or jarred products are generally considered non-perishable foods. They are shelf stable. Canned or jarred products do not require refrigeration until opened.

1. Dry goods

Dry grocery items include items such as; dry pasta, dry dinner kits (e.g. Mexican dinner kits), cereals, crackers, pancake mixes, flour, sugar, and baking supplies.

Receiving:
Materials must be in unopened, first use food grade packaging, protected from air and environmental contamination. First use grade packaging refers to manufacturer's original packaging.
Examine containers:

a. Boxes with inner bags:
    a. Discard if:
        i. inner bag is torn, perforated, leaking or contaminated
        ii. has imperfect or leaking seals
        iii. has mouldy or foreign objects inside
    b. If the outer box is damaged and inner bag is intact, place the inner bag into a plastic bag and label with contents, ingredient list and date repacked.
b. Boxes without inner bags:
    a. Discard, if opened
    b. Discard, if contaminated
    c. Discard, if signs of insects, insect skins, webs, chaff or moving pieces
c. Bags and sacks:
    a. Discard bags that are ripped, torn or punctured
    b. Discard, if there are visible signs of insect or rodent damage
    c. Discard, if there are visible spills and stains
    d. Replace missing or illegible labels

Storage:
Product should be stored in a cool, dry area. The storage area should be well ventilated and product stored off the floor. Protect from extreme temperatures and dirt and other sources of contamination. Follow First-In, First-Out procedures of stock rotation.

Repacking from bulk:

- If the product is viewed as acceptable, it can be repacked from bulk. This includes dry goods, such as flour and rice.
- Repacking must be done in an appropriate area, using clean, sanitized food contact surfaces. Personnel involved in repacking must have, received basic training in sanitation and food handling.

Shelf stable foods do not require refrigeration. Products in metal cans or glass containers are considered canned products.

Check to make sure inner packaging is intact.

Most dry goods can be repacked from bulk in new, clean containers and properly labelled.

- First use, food grade packaging must be used.
- Labels must be applied to repacked product. These should reflect the following: source of product; ingredient listings; production and expiry dates if applicable; repacking date and location. It is important to include any allergen information.

2. Canned Food Products

Food canning is a process used to safely preserve foods. Canning is a high-heat process that renders the food commercially sterile. Canned foods may be found in glass or metal containers. Commercially canned products are shelf-stable at room temperatures.

Products in metal cans or glass containers are considered canned products.

Canned food has a shelf life of approximately one to two years, from the date of processing. Canned food may retain its safety and nutritional value well beyond two years, but it may have some variation in quality, such as a change of colour and texture.

Metal food cans are made from a thin steel strip that is electrolytically coated with a thin layer of tin on both surfaces. In many cases, the interior of cans is lined with an organic compound to separate, for example, acid foods such as canned plums and beetroot, from the metal to prevent any chemical reaction. A rubber-like compound helps to form an air tight seal, when the bottom and lid are seamed onto the body of the can.

While the can remains intact, without dents or bulges, outside contamination is prevented and the food remains sterile until opened. Once opened, however the product must be treated as fresh and subject to temperature control.

Storage:

- No special storage conditions unless noted on the label for special requirements, such as “Keep refrigerated” or “Refrigerate after opening”.
- **Canned goods (low acid):** Canned meat, fish, stew, soup, beans, corn, peas, spinach or pasta can be kept for 2-5 years unopened in storage, provided that the integrity of the can has not been compromised due to damage or corrosion.
- **Canned goods (high acid):** For example, juices, fruit, pickles, sauerkraut, tomato soup and foods in vinegar, can be kept for 12-18 months in storage, provided that the integrity of the can has not been compromised due to damage or corrosion.
- Protect from extreme temperatures and dirt and other sources of contamination.
- Follow First-In, First-Out (FIFO) procedures. Stock rotation is important!

Once canned goods are opened, pay attention to storage directions.

Store unopened canned goods in moderate temperatures and clean areas.

Practice good stock rotation.

Sorting:
When damaged, the integrity of the can may be compromised and contamination of the contents may have occurred. Canned goods should be evaluated, as described below and sorted into several categories.

Label defects:

- Cans received from retail or reclamation without labels, must be discarded.
- Cans received from the manufacturer, may be used, if sufficient documentation is received. Documentation must include; name of product, ingredient listing, production date and the reason for donation. Product should be segregated, until labels are applied.
- Loose labels should be secured to the can, bottle or jar.

Make sure that all products have labels.

a. Metal containers

Serious defects:
Cans with serious defects must be discarded. These defects may result in microbiological hazards.

- Cans with deep body dents
- Cans which are cut or fractured through the metal on the end seam
- Crushed cans that cannot be stacked
- Cans with holes or with visible evidence of leakage
    - Note that stained labels can indicate product leakage
- Dented cans, especially at the junction of the side seam and the end seam
- Pull-top containers with observable fractures or dents on the lid score lines or in the rivet area
- Cans with Flippers or Springers
    - Flippers are cans whose ends can be flipped back and forth by pressing on them
    - Springers are cans, on which one end can be depressed but which springs back upon release
- Cans with bulged ends caused by severe dents or buckles (Exception: dry foods, such as coffee or powdered drink mixes)
- Rusted cans with pits, which may be ready to perforate
- Cans with defective seams
- Cans with improperly formed seams
- Cans severely dented on the double seam or score

Check cans for dents, buckles, bulges, and rusting.

Discard cans with serious defects.

Aesthetic defects which are not considered to be microbiological hazards:

- Minor body dents, which do not change the shape of the can or make it unstackable, but may slightly reduce the height of the can with moderate flat rim dents on the double seam that do not affect the seam integrity. These do not involve the junction between side and end seams.
- Rust; determine if it will wipe off. To do this, remove the label, examine the sides and wipe the can. Once the rust is removed, dry the can and replace the label or re-label.

b. Glass/Plastic containers

Discard containers with:

a. loose or crooked caps, or bulged safety seals or raised vacuum buttons
b. dirt under the rim of the cap
c. foreign objects or unusual product separation
d. incomplete or missing labels
e. signs of mould (long, stringy, clumpy or ropey, may be dark or light in colour)
f. dirt, webs, insect parts
g. leaks, cracks or chips

Check bottles for loose or crooked caps, bulged seals, raised vacuum buttons.

Check containers for dirt and damage.

Infant and senior foods, nutritional supplements and special cases:

- Foods for babies, infants and seniors, as well as nutritional supplements, must be in unopened and undamaged containers.
- Food for these sensitive groups should not be distributed beyond the expiry date, as these foods have been specifically formulated to specific nutrient levels, energy requirements, etc. If they are past their shelf life, these levels may have changed.

Do not distribute infant, baby foods and nutritional supplements after their expiry date.

Other canned products:

- **Home Canned Products, usually found in glass bottles, must not be accepted.**
- Cardboard "cans" are permeable and should be evaluated according to guidelines set out in this module.
- Aerosol cans, without the outer top, should be discarded, since they can be easily activated leading to the contamination of other products.
- Pull top, key top and pop top containers should be examined carefully, since they are susceptible to small openings along the score line. If there is evidence of any contamination under these openings, they should be discarded.

Do not distribute home canned products due to the risk of botulism.

Expiry dates:

Check for supplier code dates. As a general rule:
Canned goods (low acid): Canned meat, fish, stew, soup, beans, corn, peas, spinach or pasta can be kept for 2-5 years* unopened in storage.
Canned goods (high acid): Juices, fruit, pickles, sauerkraut, tomato soup and foods in vinegar can be kept for 12-18 months* in storage.
* *Provided that the integrity of the can has not been compromised due to damage or corrosion.*

Check for code dates.

Special considerations:

Peanut butter, nuts

Repacking of peanut butter is not permitted because of the severe allergen potential, which may cause death in people who are allergic to this.

Repacking of other products containing allergens *must be done in a segregated area* so other products will not become contaminated. It is extremely important that these procedures be stringently followed, due to the seriousness of these types of food sensitivities.

All utensils, such as scoops, spoons etc., must be thoroughly cleaned before and after use. It is recommended that separate, colour coded utensils and equipment be used for handling allergens.

(Refer to the Allergen section in Part 2 of the standards)

Module 2: Baked Goods

Baked goods can be divided into several risk categories:

- Fresh breads, buns, muffins
- Frozen breads and dough
- Bakery products containing meat, eggs or other dairy products

Baked goods can fall into one of several risk categories.

General considerations:

- Do not distribute products that are mouldy or stale or have damaged packaging
- Special considerations
    - Ensure proper ingredient declarations, as they may contain high priority allergens, such as sesame seeds, nuts and milk ingredients.

Do not distribute mouldy products.

1. Fresh breads, buns, muffins

- Treat as perishable low risk (Module 1) products.

2. Bakery products containing meat, eggs or other dairy products

- Treat as meat (Module 4) or dairy (Module 5) products.

Refrigerate bakery products containing meat, eggs or dairy.

3. Frozen breads and dough

- Treat as frozen (Module 6) products.

Keep frozen dough frozen.

Module 3: Fresh Fruits and Vegetables

This category contains several types of products:

- uncut raw fruits and vegetables (low hazard perishable foods)
- precut fruits and vegetables (potentially hazardous foods).

1. Uncut raw fruits and vegetables

Receiving:

- Check for soundness of products. Discard any products that show signs of mould or spoilage.

Discard products that show signs of mould.

Storage:

- Minimally processed fruits and vegetables and sprouts, must be stored at 4°C (40° F) or colder.
- Exceptions include potatoes, tomatoes, bananas, onions, sweet potatoes, and pumpkins, which should be stored at ambient temperatures.
- Rutabagas (turnips) and squash can be stored at ambient temperatures, for short periods and may be refrigerated for longer storage.
- Potatoes, except for new potatoes, should not be refrigerated.
- Some vegetables, such as lettuce, are subject to chill injury.

Repacking from bulk:

- Follow good hand washing practices as outlined in Part 2 of Manual (pg. 8).

2. Pre-cut fruits and vegetables

Receiving:

- Should be received at refrigeration temperatures.

Pre-cut fruits and vegetables require refrigeration.

Storage:

- Fruit and vegetables, that have been sliced or had their natural coatings removed, should be refrigerated (4 °C/ 40°F or colder) or kept frozen.

Repacking from bulk:

- Products may be repacked, if facility has properly equipped preparation area, which meets applicable regulations.

3. Other

Adequate attention must be given to garbage areas, as partially spoiled produce can quickly result in problems with odours and flies. Garbage must be stored in covered containers and removed frequently.

Module 4: Fresh meat, poultry, seafood and game

Fresh meat, poultry, seafood and game, are potentially hazardous products. They must be donated from an approved source and properly dressed.

They must be kept at temperatures 4°C (40° F) or colder and distributed in their original, unopened packaging. Accurate thermometers should be used, to check the temperatures on receipt and daily, while in storage.

Meat, poultry, seafood and game are considered potentially hazardous products. Temperature control must be maintained.

Receiving:

These products must be:

- received at chilled temperatures (4 °C/ 40°F or colder)
- securely closed in food grade packaging materials
- separated according to food type
- labelled and dated

Do not accept:

- foods that do not come from a reputable source
- foods that appear spoiled (unusual odours or appearance or visible mould)
- foods that have been in the danger zone more than 2 hours
- foods that are packaged in non-food grade packaging materials

Storage:

Store at refrigeration temperatures 4°C (40° F) or colder, or freeze as soon as possible.

Store at refrigeration temperatures or freeze.

Refrigerators or coolers must be able to maintain refrigeration temperatures and the food cooled to 4°C (40° F) or colder.

Close the door securely each time you open, close, enter or exit the unit. Do not overload with food or put hot food directly into it. Ensure that there is adequate space around all foods to ensure airflow.

Check temperatures of meat, poultry, seafood and game.

Repacking from bulk:

- Products may be repacked, if facility has properly equipped preparation area, which meets applicable regulations.
- If large pieces of meat are received, which require cutting into smaller portions, appropriately cleaned and sanitized equipment and work areas must be used.
- Label all repackaged products to ensure traceability.

Documentation:

Temperature logs, for documenting refrigerator temperature are critical. The temperature of the refrigerator should be checked, at least twice a day, to monitor any temperature fluctuations. Check the temperatures using a suitable thermometer.

Module 5: Dairy and Egg Products

Potentially Hazardous Foods are the foods that support growth of disease causing microorganisms and/or the production of their toxins. These foods contain high levels of moisture, protein and are neutral or slightly acidic.

This category of food is considered potentially hazardous and includes several types of products:

- ***eggs***
- ***milk, butter, cream***
- ***cheese***
- ***yoghurt***
- ***ice cream***
- ***frozen desserts***

Dairy and egg products are considered potentially hazardous.

Receiving:

- All products must be obtained from inspected sources.
- Cracked eggs must be discarded. Do not distribute.
- Pasteurized milk and milk products, stored and distributed in their original, unopened containers, may be accepted. Milk products include fluid milk, cream, cream products, ice cream, frozen desserts, yoghurts and similar types of foods.
- Pasteurized ice cream, that is partially softened and is from a reliable donor, may be accepted if in the original, unopened package/container.
- Heat-treated cheeses are acceptable.

Storage:

- Egg and egg products must be refrigerated and kept at 4 °C/ 40°F or colder.
- Dairy products should be refrigerated or frozen.

Store at refrigeration temperatures or colder.

Repacking from bulk:

- Eggs, showing no signs of damage, cracks etc., from inspected sources may be repacked into clean cartons from the same supplier. Repack eggs with the same size and same or lesser grade of egg and label the new/clean carton with the shortest of the “Best before” dates, on the eggs.

Special considerations:

- Discard, if any signs of wild mould on soft cheeses. Hard cheese such as Cheddar or Swiss can be salvaged, if they are trimmed at least 1” from the edge of the mould.
- Dry powdered milk is considered shelf-stable, but should not be repacked.

Discard soft cheeses if evidence of mould. Hard cheese can be trimmed.

Module 6: Frozen Products

Receiving:

- Frozen goods should be completely frozen upon receipt.
- When frozen food is received with an ambient or box temperature of -12°C (+10° F) or warmer and/or in damaged or badly soiled cases, the supervisor must be notified to provide special handling instructions. The deviation must be documented with appropriate records and authorizations.
- Frozen goods need to be examined, to ensure that they have not been thawed and refrozen
  - Meat may appear "glassy".
  - Presence of ice crystals.
  - Other foods (for example peas) may be clumped together.

Frozen foods must be kept frozen.

Storage:

- Frozen goods should be maintained at -18°C or colder, so that they are kept solidly frozen.

Maintain at -18˚ C or colder.

Repacking from bulk:

- Should not be done

Special considerations:

- Check freezer temperatures at least daily
- Rotate foods following First-In , First-out (FIFO) procedures
- Check freezer units regularly
- Keep freezer doors closed as much as possible
- Check food for damage due to prolonged storage
- Defrost freezers regularly. Move food to another freezer unit while defrosting.

Check temperatures of freezers daily.

Food Bank or Food Program

- If food is frozen on the premises of the food bank or food program, care should be taken that the food is chilled quickly and that the freezer is not overburdened with hot/warm product.

Documentation:

- Keep a signed temperature log noting date, time and temperature of freezer when checked.

Chill quickly

Perishable Food Decision Tables

1) Frozen Foods

Type of Food	Partially Frozen (some ice crystals)	Thawed-still cold (below 40°F)	Thawed-warm (above 40°F)
Meats	refreeze	cook and serve or cook and refreeze	Discard
Poultry	refreeze	cook and serve or cook and refreeze	Discard
Organ Meats	use within 48 hours; do NOT refreeze	cook and serve	Discard
Fish and Shellfish	refreeze	cook and serve or cook and refreeze	Discard
Combination Dishes (stews, casseroles, etc.)	cook and serve or cook and refreeze*	cook and serve	Discard
Dairy Items	refreeze	refreeze or refrigerate	Discard
Produce	refreeze	cook and serve or cook and refreeze	Discard
Juices	refreeze	refreeze	Discard
Baked Goods	refreeze	refreeze	Serve

2) Refrigerated Foods

Food	Action
Milk	Discard if held above 40° F (4°C) for more than two hours.
Fruit Juices	Generally, safe unrefrigerated for short periods, but discard if cloudy, mouldy, or fermented.
Eggs (fresh or hard boiled)	Discard if held above 40° F (4°C) for more than two hours.
Hard cheese, butter, or margarine	Generally, safe unrefrigerated if well-wrapped, but discard if mould or rancid odour develops.
Soft cheeses	Discard if held above 40°F (4°C) for more than two hours.
Fresh fruits and vegetables	Generally, safe unrefrigerated, but discard if mould, yeasty odour, or slimy texture develops.
Fresh meats and poultry	Discard if held above 40°F (4°C) for more than two hours.
Lunch meats and hot dogs	Discard if held above 40°F (4°C) for more than two hours.
Mayonnaise	Discard if held above 40°F (4°C) for more than two hours.

3) Prepared Foods: Discard prepared foods that are between 40°F (4°C) and 140°F (60°C) for longer than 2 hours. Ensure to take the temperature at the edge of the package where it will cool down or warm up first.

Module 7: High Risk Foods

High risk foods must not be accepted at food banks or food programs.

These include:

- Foods not in their original containers
  - Home packed foods
  - Open or partially used foods may pose a serious risk as they are not adequately protected
- Food prepared in a home environment, such as home canned vegetables, meat, fish products and their combinations, such as stews, and antipastos.
- Unpasteurized dairy products
- Prepared foods
  - From an unapproved, unknown donor
  - Already served to clients
- Foods donated from estates
  - Food should not be distributed, if it appears to have been thawed and refrozen or if the products are not identifiable

High risk foods must not be accepted at food banks or food programs.

Module 8: Non-food (Health & Beauty aids, cleaners etc.)

Receiving:

- Ensure non-food items are received on separate pallets, unless adequately separated by packaging, slip sheets etc. Pay particular attention to chemicals, such as laundry detergents, and bleach, that may spill and contaminate food products.
- Leaking containers of liquid soaps and cleaning supplies must be discarded and not placed into storage or distributed.
- Torn containers of dry or powdered soap may be taped and used.
- Discard torn or broken packages or containers of diapers, feminine hygiene products, toothpaste, and mouthwash.
- Aerosol cans, pump-operated or pressurized containers, that are missing the outer cap must be discarded.
- Paper goods may be received and distributed, as long as they are not dirty or show evidence of pest infestation. Inspect carefully, tape any tears, and store away from food products.
- **Over the counter medication must be properly disposed. Pharmaceuticals should never been flushed down the drains, or disposed into garbage receptacles. It is best to deliver medications to the pharmacy that is able to dispose of any medication appropriately.**

Storage:

- All non-food products must be stored in a separate area from food products, if possible.
- If not, they should be stored on lower shelves, so they will not spill and contaminate food products.
- Store at ambient temperatures and protect from extremes in temperature.

Repacking from bulk:

- Repacking from bulk should not be done.
- An exception may be made for clean, undamaged diapers.

Non-food products must be separated from food products.

Over the counter medications must not be distributed.

Store non-food products separately from food products. If space is limited, store on lower shelves, so they cannot contaminate food products.

Module 9: Recovered Food (prepared/cooked)

Partially used foods, even from a commercial kitchen, may pose a serious risk. Good judgment should be used to decide if the food is suitable for distribution. Food should have been maintained at proper temperatures and not have been held at room temperature.

Receiving:
Food must be provided by a regulated food business, such as a restaurant, bakery, caterer, or corporate cafeteria.
Do not accept food that:

- has been previously served to the public
- has not been maintained below 4°C or above 60°C and protected from contamination at all times
- has been reheated
- shows signs of thawing or freezer burn
- is not in first-use food-grade packaging

Storage:

- All foods must be labelled and dated
- Prepared foods, such as entrees, starches, side vegetables, chilled foods, and home-meal replacements, must be chilled and held at 4°C/ 40°F or colder or frozen at -18°C or colder.

Recovered food must be stored and transported at proper temperatures.

Module 10: Reclaimed products

Receiving:

Reclaimed product is generally product received from food retailing and manufacturing operations and consists of unsaleable product. These products may be in damaged containers and/or dirty or soiled packaging and may exhibit some spoilage (fruits and vegetables).

Product received through reclamation requires very careful inspection and sorting. As it may be infested with pests, it is preferable that it is received, inspected and sorted in a separate facility or area.

- It is critical to inspect and evaluate for signs of:
  - Cross contamination
    - Discard boxes showing signs of spilled liquids or powders. For example, there may be evidence of this through staining on the packaging, off odours, etc.
  - Infestation
    - Immediately open the boxes and inspect contents for rodents or droppings, crawling or flying insects, insect carcasses and gnaw or bore holes.
    - Discard box in a closed garbage container, outside the facility.
  - Container integrity
    - Inspect products inside any damaged boxes. If the packages are undamaged, place into storage.
    - Discard any products, which are in damaged packages.
- Record date received on pallets, so that reclaimed products are sorted in the order received.

Sorting:

The initial sorting is very important as salvageable goods must be recovered from the reclamation products. As much as 40-50% of the goods received, may not be salvageable for redistribution due to the nature of the product itself or their containers, contamination, potential contamination, infestation or damage.

Products that cannot be redistributed:

- foods that have or may have been contaminated by:
  - pesticides or other chemicals, such as cleaning products, health and beauty aids etc.
  - insects, rodents or their feces or urine
- baby food
- prescription drugs
- home canned products
- pesticides and other toxins, such as oven cleaners

Check for signs of contamination in the box or container of reclaimed goods.

Reclaimed food products require special inspection and sorting.

Inspect for pest damage, cross contamination, container integrity, and spoilage.

When in doubt, throw it out!

Examples are:

- insects, active or carcasses
- rodent droppings or urine
- stains on packaging that may be caused by contaminants or other hazards
- spilled cleaning products
- toxic substances or chemicals
- broken glass
- open pet foods
- mould
- sour, foul or rotten odours

If any of these signs of contamination are found, any food in plastic, paper bags and boxes must be discarded. Canned goods, waterproof plastic containers and aseptic packages should be examined further to see if they are salvageable.

- To do this:
- Remove the contents of the box and sort.
- Inspect all products following the guidelines specified in each module.
- Remove food items and discard any that are contaminated. Sort into:
    - Products requiring sanitizing: canned goods, aseptic packages, retort pouches and some plastic wrapped items.
    - Bagged or boxed products: cereals and pasta with seals that need to be checked
- Remove all toxic substances and isolate them. Discard any products that are leaking or have a puncture, broken seal or missing cap.
- Remove and isolate all cleaning products. Discard any leaking products.
- Remove pet foods and isolate. Open bags must be put in tightly closed containers. Immediately discard any pet foods that may be contaminated, as they have a higher potential for insect infestation, which can further infest other foodstuffs.

- Remove miscellaneous products and examine for damage and contamination.
- Check the empty box for insect tracks and carcasses, bore holes and webs. If any signs of infestation, discard the box immediately in a closed trash container outside the facility.

Sanitizing:
Follow Cleaning and Sanitation Procedures as previous discussed in Part 2 of the Standards.

Carefully check reclaimed goods. Look for signs of contamination.

If in doubt, throw it out!

If potential for salvage, re-examine carefully.

Module 11: Meals prepared on-site

Receiving:
Refer to Core Standards

Storage:

- Keep food out of the danger zone (between 4°C (40°F) and 60°C (140°F))
- Keep hot food hot (60°C (140°F) or above), keep cold food cold (4°C (40°F) or below.
    - Refrigerated Food must be kept at 4°C (40°F) or colder.
    - Frozen Food must be kept solidly frozen at -18°C (0°F) or colder.
- Refrigerate or freeze perishables, prepared foods, and leftovers, within 2 hours.
- Cool food.
- Marinate foods in the refrigerator.

Thawing:

- Thaw foods in conditions that will allow the internal temperature of the product to remain at 4°C (40°F) or colder:
    - In the refrigerator, in cold water or in the microwave, if you will be cooking it immediately.

Food Preparation:

- Keep food preparation tables clean.
- Use clean utensils, not your hands, to handle cooked or ready-to-eat foods. Touch food with hands, only if necessary.
- Clean and sanitize all food contact surface before and after use
- Use separate cutting boards for meat and ready-to-eat foods or thoroughly clean and sanitize between uses. Coloured cutting boards make it easy to differentiate. Use separate knives and utensils.
- Keep raw foods separate from ready to eat foods, to prevent cross contamination.
- After handling raw foods, always wash your hands. Never serve undercooked meats, poultry and fish.
- Never partially cook potentially hazardous foods ahead of time**.** Wash and rinse any fresh fruits and vegetables, prior to use.
- Separate products that contain allergen ingredients. Use of colour-coded utensils is recommended.

Cooking:

- Cook to proper temperatures (refer to regulatory authorities having jurisdiction in your area). Measure internal temperatures using a probe thermometer. As a guideline, the following products internal cooking temperatures are included in the Food Service and Food Retail Code:
    - Food mixtures containing poultry, eggs, meat, fish, or other potentially hazardous foods: 74°C (165°F)
    - Pork, lamb, veal, beef (whole cuts, does not include injection treatments):

Follow proper thawing, cooking and cooling procedures.

Keep food out of the danger zone!

Keep raw foods separate from cooked foods.

Take precautions when handling allergens.

Cook to proper temperatures.

71ºC (160ºF)
- Rare roast beef: 63°C (145°F) for 3 minutes
- Poultry: 85°C (185°F)
- Stuffing in Poultry: 74°C (165°F)
- Ground Meat: 71ºC (160°F) (NOTE: some provincial jurisdictions are using 70°C)
- Ground Poultry: 74°C (165°F)
- Eggs: 63°C (145°F)
- Fish: 70°C (158°F)
- Shrimp: 74°C (165°F)

- For large pieces of meat, or large batches of food or frozen foods, check the temperature in several places.
- When cooking in a microwave, make sure the food is cooking thoroughly. Cover food, stir and rotate for even cooking. Follow suggested standing times.

Hot and Cold Holding of the food:
- Keep all soups, chili and hot dips hot before serving (60°C, 140°F or hotter). Use a thermometer to check temperatures.
- Ensure that all reheated foods reach at least 74°C for at least 15 seconds. Use a probe thermometer to check internal temperatures.
- Do not use a hot hold unit to reheat foods. Always reheat food to recommended temperatures on the stove or in the oven and then transfer into hot holding unit.
- If using a self-serve area, ensure that sneeze guards are used.
- Ice used to surround chilled foods must drain away from the food.
- If serving hot food buffet-style, use chafing dishes, crock-pots and warming trays.
- Always replace a whole dish rather than refill either a hot food tray or a cold food tray by adding new food to the existing food.
- Use separate utensils for all foods.
- Always replace a serving utensil when a dish is replaced.

Keep hot food hot.

Keep cold food cold.

Cooling:
Follow good cooling procedures to quickly cool foods:
- Cut large pieces of meat or whole poultry into smaller pieces.
- Reduce size of container. Divide large pots of food into serving sizes to cool quickly.
- Place foods in a shallow pan with the food no deeper than 2”.
- Use an ice bath.
- Use ice paddles, cooling wands, or cooling sticks.
- Allow hot air to escape by folding a corner of foil, or loosely covering foods while cooling.
- To ensure faster cooling avoid stacking of shallow cooling pans.
- Use rapid cooling equipment such as walk-in coolers.
- Whenever possible use containers such as stainless steel as they transfer heat well, unlike plastic that does not transfer heat well.
- Use ice as an ingredient in soups, stews.

Cool foods quickly.

Chilling of Potentially Hazardous Food:

- Ensure food is chilled from 60°C (140°F) to 20°C (68°F) within two hours from the end of cooking or reheating.
- Food must be chilled from 20º°C (68°F) to 4°C (40°F) or less within the next four hours.
  (Note: Total cooling time is six hours.)

Reheating:
Food should be reheated only once to a temperature of 74°C (165°F). Any leftovers must be disposed of and not used for human consumption.

Repacking from bulk:
Not applicable

Special considerations:
Ensure that all foods are correctly labelled, noting any allergens.

Documentation:
Temperature logs should be kept for the following activities:

- cooking
- hot and cold holding
- reheating

Reheat foods only once.

Glossary

acceptable - good enough, satisfactory, okay

access - ability to approach, enter or use

accumulate - build up, increase, collect or gather together little by little

acid - something with a pH level of less than 7.0

additives - preservatives, antioxidants, colourings, emulsifiers, stabilizers, artificial sweeteners and flavourings added to food to improve quality, taste, shelf-life, function or appearance

adequate - good enough, satisfactory, sufficient

adulteration - the addition of a contaminant to food

aerobic - able to live and grow only where there is free oxygen

alkali - something with a pH of more than 7.0

allergens - something that can cause an allergic reaction. Common food allergens are peanuts and other nuts, shellfish, eggs, sesame seeds, milk and dairy products, soy, wheat and sulfites

anaerobic - able to live and grow where there is no free oxygen

audit - an official examination or check. e.g. a HACCP audit or if a facility checks if the food safety program is effective

bacteria - single celled microorganisms

best before date - d*ate until which* the unopened product will retain its durable life if properly stored

biodegradable - materials that can be decomposed by microorganisms

biological hazard - a danger to food from disease causing bacteria and poisonous plants and fishes such as bacteria, moulds, parasites and viruses

botulism - a rare but serious food borne illness (food poisoning) caused by a toxin produced by *Clostridium botulinum* bacteria. *C. botulinum* bacteria cannot grow in the presence of oxygen. They are a concern in improperly canned low acid foods such as corn, green beans, mushrooms, spaghetti sauce, salmon, and fruit juices. The toxin can also occur in improperly stored baked potatoes and in honey.

bright stock - containers such as metal cans that do not have labels

CFIA - the Canadian Food Inspection Agency, responsible for safeguarding the Canadian food supply and the plants and animals upon which safe and high quality food depends.

chemical hazard - danger to food from chemical substances such as pesticides, cleaning agents, food additives, and toxic metals

chemical residues - chemical film that may be left on a surface after improper cleaning

chill injury - injury that may occur in fruits and vegetables when exposed to cold temperatures, causing loss in quality.

CIP - Clean-in-Place (applies to equipment that cannot be taken apart for cleaning)

Clean - remove dirt or soil and other foreign materials

code number, lot code, batch number - numbers or codes that are used to identify when and where a product was made

common name - the name a food is commonly known by

communicable disease - a disease that can spread from an infected person to other people through food or personal contact

compliance - following rules or guidelines, meeting a set standard

contamination - to make something impure or bad by adding harmful substances or organisms

corrective actions - actions taken to determine the immediate actions to deal with affected product and the long-term actions to be taken to prevent reoccurrence

corrosion - a chemical reaction of metal with water and oxygen, normally seen as rusting of a metal can

cross contamination - the transfer of harmful substances from one food to another by means of a non-food surface such as utensils, equipment or human hands

danger zone - the temperature range between 4°C and 60°C where bacteria grow the fastest

dry goods - foods that are dry in nature and usually do not require special handling and storage. Examples include dry pasta, cereals, crackers, pancake mixes, flour, sugar, and baking supplies.

Durable life - The durable life (best before) is the *amount of time* that an unopened product will retain all of its wholesomeness, taste, nutritional value, and any other qualities claimed by the manufacturer, when stored under appropriate conditions

E. Coli - a class of organisms, some of which occur naturally in the body and others, such as Escherichia coli O157:H7, which cause food borne illness. *E. coli* O157:H7 are found naturally in the intestines of

cattle, poultry and other animals and can contaminate meat surfaces during slaughter. However, these organisms are easily killed by cooking.

edible - fit to eat

eliminate - remove, get rid of, destroy, kill

expiry date - the date before which the quality of a product remains acceptable for its intended use. Generally applies to drugs, infant foods and senior foods.

extraneous matter - any contaminant of a raw material or food

Facility - the physical structure, building or premises in which the food bank or food program operates

FIFO - first in, first out – goods first received (placed in storage) should be used first.

first use containers - clean containers that have not been previously used

food poisoning - a general term for infection or intoxication caused by eating contaminated food

food borne illness - diseases which are transmitted through food to people

fresh foods - foods that have not been cooked, frozen or otherwise processed

frozen foods - foods that have been frozen

fungi - plants unable to produce their own food and are usually parasitic. Yeasts are used to produce alcohol and bread, moulds cause food spoilage

germs - bacteria

Good Manufacturing Practices (GMPs) - guidelines for safe production and handling of food

Hazard - a biological, chemical, or physical agent or factor with the potential to cause an adverse health effect

Herbicides - chemical substances used to kill plants, particularly weeds

high acid foods - foods which contain a large amount of acid. They do not generally pose significant health hazards and are considered low risk foods

hygiene practices - things you do to maintain good health (e.g. washing your hands)

inadequate - not good enough, insufficient

inedible - not fit for eating

infection - disease caused by pathogenic bacteria which enter the body and multiply

infestation - the presence of rats, mice, insects or mites in numbers or under conditions that involve an immediate or potential risk of food contamination, loss or damage

inner packaging - the inside bag or container

insecticides - chemical substances used to kill insects

isolate - keep separate

inspection - to look over carefully, examine

inspected sources - manufacturers, commercial kitchens, licensed butchers

Listeriosis - a serious foodborne illness caused by *Listeria monocytogenes.* Listeria bacteria can be found in soil, plants, water, sewage and feces of humans and animals. Unlike most bacteria, *Listeria* can survive at refrigeration temperatures and can be a problem in ready-to-eat meats.

list of ingredients - as specified on the food product label

lot number - numbers or codes used to identify when and where a product was made

low acid foods - foods that have a pH or acidity above 4.5

master carton - the main or outside carton

microorganism - any minute living organism including bacteria, viruses, yeasts, moulds and protozoa

mock recall - a practice or pretend recall to check if the recall program runs well

monitor - to regularly check (observe and/or measure) to make sure a CCP (critical control point) is under control and to make a record of your observation

monitoring devices - devices used to check certain processes. A thermometer is a monitoring device used to check temperatures of refrigerators and freezers.

Moulds - microscopic plants (fungi) that may appear as fuzzy patches on food

Mycotoxins - poisonous chemicals (toxins) produced by some moulds, e.g. *Aspergillus flavus* that can cause food illness

net quantity - the quantity of food contained in a food package

non-perishable foods - Items that do not require refrigeration such as pre-packaged foods, canned or jarred foods, and dry goods (flour, sugar, pasta)

Norwalk Virus - a viral pathogen, that can be found in untreated water. All water used in food preparation must be potable.

nutrient label - a label required on all prepackaged food products that list the amount of 12 core nutrients and energy

pallet/skid - a wooden platform used to transport materials

pathogen - an organism (e.g. bacteria) that can cause disease

perishable foods - foods that require special storage conditions, such as refrigeration or freezing, to prolong freshness and inhibit bacterial growth

personal hygiene - combination of an individual's practices and style that relate to cleanliness

pest - any living creature capable of directly or indirectly contaminating food, including mice, rats, cats, flies, and birds

pH - a numerical index used as a measure of acidity or alkalinity

physical hazard - substance in food that could cause illness or injury such as glass, wood splinters, metal, stones or plastic

plant schematic - a diagram or map of the food processing plant, showing product flow and employee traffic flow patterns

potable - safe to drink and use in food preparation

preservative - a chemical added to a food, to increase the shelf life by delaying spoilage

product code - the date marking on food packaging, to show its safe shelf-life within which time it should be consumed

recall - the ability to recover (bring back) harmful or substandard product

reclamation - sorting food products to determine if they are safe to distribute to clients

refresher training - training that is done on an annual basis to reinforce concepts and good practices

regulations - formal rules or laws

repacking - the act of taking large amounts of a product and portioning into smaller amounts for distribution

risk - the estimate of the probability of a hazard occurring

Salmonella - a class of bacteria that can cause a food borne illness known as Salmonellosis. Salmonella can be found naturally in poultry, animals, reptiles, and humans. Salmonella can be found in raw and undercooked meat, poultry, fish, shrimp and eggs, raw fruits and vegetables, unpasteurized dairy products, sauces and salad dressings, peanut butter, cocoa, chocolate and dried gelatin. Salmonella are destroyed when food is cooked to a safe internal temperature.

sanitize - to destroy disease causing pathogens and other harmful organisms; a sanitizer disinfects a surface that may appear clean.

shelf life - the period within which food is safe and has the desired quality

shiners - containers such as metal cans that do not have labels

spoilage - a process whereby food is rendered unacceptable through microbial or chemical reaction

spores (bacterial) - a resistant resting-phase of bacteria, which protects them against adverse conditions

standing water - water that is not flowing, such as a puddle

stock rotation - the practice of ensuring the oldest food is used first and that all food is used within its shelf life

standard or standard of identity - the prescribed composition of a food or food ingredient

toxin - poisons produced by pathogens, either in the food or in the body after consumption of the food

UPC code - Universal Product Code (UPC) is a 12 digit, all-numeric machine readable code that identifies a consumer package.

Viruses - microscopic pathogens that multiply in the living cells of their hosts

Yeast - unicellular fungus that grows rapidly on certain foods, especially those containing sugar. Yeast is the principle organism used in fermentation of sugar to alcohol.

verify - check, find out if something is true

visual inspection - using your eyes to look carefully at something

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