



Alberta
HACCP
Advantage

AHA!

Alberta HACCP Advantage Standard

Canada

The Agricultural Policy Framework (APF)
A FEDERAL · PROVINCIAL · TERRITORIAL INITIATIVE

Alberta

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Alberta HACCP Advantage Standard

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Canada

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The Food Safety and Animal Health Division of Alberta Agriculture and Rural Development (ARD), in cooperation with Agriculture and Agri-Food Canada, has embarked on a new initiative to deliver food safety systems to the post-farm food processing industry. The Alberta HACCP Advantage (AHA!) Program provides a framework for Alberta food processors to implement an Alberta-recognized HACCP system or to use components of HACCP to improve existing food safety systems.

The Alberta HACCP Advantage (AHA!) Standard is a key tool in the AHA! Program. The AHA! Standard sets forth the requirements, or standards, for an effective food safety program. The AHA! Standard meets the Codex Alimentarius “Recommended International Code of Practice - General Principles of Food Hygiene”.

The AHA! Standard booklet is made up of three parts:

- Part I contains eight prerequisite programs (which are sometimes referred to as Good Manufacturing Practices or GMPs) with a total of 77 standards. Part I also contains a product protection section.
- Part II contains seven HACCP plan forms.
- Part III contains an overview of certification and recognition requirements under the AHA! program.

In order to implement an effective HACCP system, both prerequisite programs and HACCP plans must be developed and implemented as shown in the table below.

[Table 1]

PREREQUISITE PROGRAMS		HACCP PLANS		HACCP SYSTEM
Prerequisite programs provide the foundation of a HACCP system. They are procedures and practices that provide the basic environmental and operational conditions necessary for the production of safe foods. Once fully documented and implemented, you can develop your HACCP plans.	+	HACCP plans outline how the hazards associated with incoming materials, ingredients and process steps are controlled. They also identify the processes that are critical to ensuring food safety (critical control points).	=	A HACCP system is internationally accepted as one of the most effective approaches to safe food production. It is a proactive and prevention-based program. If implemented properly it will meet the requirements of an effective food safety system.

This standard can be used to develop and implement a full HACCP system or you may choose to use only certain components of the standard to improve your current food safety system.

For best results, we recommend you develop, implement and ensure effective functioning of your prerequisite programs prior to developing and implementing your HACCP plans. When developing and implementing your prerequisite programs you must control those factors that are critical to food safety (e.g. cooking of food, screening, metal detection). For this reason you may wish to read the product protection section of this standard first, and ensure that you address those factors that are critical to food safety.

The prerequisite programs in this standard are organized into elements:

- A Program
- A1 Element
- A1.1 Sub-element
- A1.1.1 Bullet or standard (i.e., requirements)

An effective written program must fully address each element within the prerequisite programs. For example, procedures must include:

- **Who** conducts the activity or procedure;
- **What** they do and **how** they do it;
- **When** and **how often** they do it;
- **Deviation procedures** to indicate what is done if something goes wrong or a deviation is found (complete with who, what/how and when this is done);
- **Verification procedures** to verify the activity is being carried out effectively (complete with who, what/how, and when this is done); and
- **Records** to provide documentation (i.e. evidence) that the activity is being performed.

Depending on your knowledge of HACCP systems, you may be able to implement an effective food safety program using only this standard. You can also refer to the AHA! Guidebook and other support materials. Regardless of your approach, you will need to ensure that the prerequisite programs and HACCP plan(s) effectively control the hazards, are auditable, and meet the regulatory requirements for your jurisdiction.

There are two forms of certification available under the AHA! program:

1. AHA! GMP Certification – achieved by implementing and maintaining the AHA! Standard Prerequisite Programs (GMPs) and Product Protection program.
2. AHA! HACCP System Certification – achieved by implementing and maintaining the AHA! Standard Prerequisite Programs (GMPs) and HACCP plans. (Note: When implementing a full HACCP system, the HACCP plans will replace the Product Protection program.)

For more information regarding certification, please read Part III “Requirements for Certification and Recognition” of this document or refer to the AHA! Recognition Protocol document available online at <http://www.agric.gov.ab.ca/aha>.

If you have questions about this standard, please contact a Food Safety Specialist at:

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PART I PREREQUISITE PROGRAMS

A. PREMISES

OBJECTIVE

“To effectively locate, design, construct and maintain the facility, its premises and the facility equipment to control indirect hazards to food safety.”

An effective premises prerequisite program is comprehensive. It ensures that the following factors do not contribute to the contamination of food produced in the facility:

- Design, construction, renovation and maintenance of facilities and equipment (including heating, air conditioning, refrigeration, ventilation, plumbing and lighting systems);
- Waste disposal;
- Sanitary facilities;
- Water, ice or steam supply;
- Employee and product flow; and
- Equipment placement.

RATIONALE

Improper location, design, construction and maintenance of a facility, its premises and its equipment can contribute to contamination of food produced in the facility. This extensive program will control many “indirect” hazards to the food. Below are some examples of indirect hazards:

- Improper design and layout of processes can cause needless overlap of raw materials and finished products, and the employees that handle them, increasing the potential for cross-contamination;
- Pooling water, excessive vegetation or excessive garbage and debris surrounding the facility can attract flies, mice and other pests that might enter the facility and contaminate food or packaging materials; and
- Use of improper light bulbs or fixtures in processing areas can cause physical hazards to food should breakage occur.

A 1. BUILDING EXTERIOR

A 1.1 Outside Property and Building

A 1.1.1

The building is not in close proximity to any environmental contaminants. The surroundings and roadways are free from debris and refuse, adequately drained, and maintained to minimize environmental hazards.

A 1.1.2

The building exterior is designed and constructed to prevent entry of contaminants and pests (e.g., there are no unprotected openings, air intake is appropriately located, and the roof, walls and foundation are constructed with appropriate grading and materials to prevent leakage).

A 1.1.3

The building exterior is appropriately maintained to prevent entry of contaminants and pests (e.g., there are no unprotected openings, and walls and foundation are maintained to prevent leakage).

A.2 BUILDING INTERIOR

A 2.1 Design and Construction

A 2.1.1

Where required/appropriate, areas of the establishment are provided with an adequate number of conveniently located hand washing stations (with trapped waste pipes to drains) and hand sanitizer stations.

A 2.1.2

Floors, walls, doors, windows, ceilings, overhead structures, stairs and elevators are constructed of material that is durable, smooth, cleanable and suitable for the production conditions in the area, and will not contribute to contamination of the environment or food.

- Floors are sloped to drain liquids to trapped outlets or are designed for easy cleaning;
- Joints are sealed and angles are coved where appropriate; and
- All materials used are listed in the “Reference Listing of Accepted Construction Materials, Packing Materials and Non-Food Chemicals Products”, published by the Canadian Food Inspection Agency (CFIA) or a “Letter of No Objection” from Health Canada is obtained.

A 2.1.3

Lights, bulbs and fixtures in food premises are designed and constructed so that:

- In areas where there is exposed food or packaging materials, lights, bulbs and fixtures are of a safety type and/or are protected to prevent contamination of food in case of breakage; and
- Lighting is adequate enough to ensure that the intended production or inspection activity can be effectively conducted (e.g., lighting does not alter the food colour and is adequate for the nature of the operation).

A 2.1.4

Ventilation is designed to provide sufficient air exchange to remove contaminated air/prevent unacceptable accumulations of steam, condensation or dust.

A 2.1.5

Building and facilities are designed to facilitate hygienic operations by means of a regulated flow in the process from the arrival of the raw material at the premises to the departure of the finished product. Contamination of food by employee traffic patterns, product flow and equipment is prevented by physical or operational separation. Blueprints and/or process flow diagrams are available.

A 2.1.6

Washrooms, lunchrooms and change rooms have adequate floor drainage and ventilation. These areas are separate from, and do not open directly into, food processing areas.

A 2.1.7

Establishments are designed and constructed to properly handle waste:

- There is no cross-connection between the sewage system and any other waste effluent system;
- Sewage and waste systems do not pass directly over or through production areas unless they are controlled to prevent contamination;
- Systems are equipped with appropriate traps and vents; and
- Sufficient waste disposal areas are located, ventilated and refrigerated (where necessary) to prevent cross-contamination of product.

A 2.1.8

Equipment cleaning and sanitizing facilities are constructed of corrosion-resistant materials that are easily cleaned. They are separated from food storage, processing and packaging areas to prevent contamination.

A 2.1.9

There are no cross-connections between potable and non-potable water supplies. Non-potable water access points are clearly marked.

A 2.1.10

Water storage facilities and re-circulated water systems are designed and constructed to prevent contamination.

A 2.1.11

Plans for all new construction, whether for new facilities or renovation of existing facilities, are approved by the appropriate government agency (e.g., Alberta Agriculture and Rural Development or Alberta Health Services).

A 2.2 Premises Maintenance

A 2.2.1

Floors, walls, ceilings and overhead structures are appropriately maintained to ensure they do not contribute to the contamination of food.

A 2.2.2

Windows are sealed or equipped with close-fitting screens and maintained in good condition/repair. Doors are close-fitting and self-closing where appropriate.

A 2.2.3

A written policy and procedures are in place to control glass and hard/brittle plastics in the plant, including:

- A policy stating that no glass or hard/brittle plastics are used in the plant except where absolutely necessary;
- An inventory of all essential glass and hard/brittle plastics;
- A procedure to monitor all essential glass and hard/brittle plastics; and
- A procedure for handling and investigating damaged glass or hard/brittle plastics.

A 2.2.4

Lighting is maintained so that production and inspection activities can be effectively conducted (e.g., lighting does not alter the appearance of food and is adequate for the nature of the operation).

A 2.2.5

Ventilation provides sufficient air exchange to prevent unacceptable accumulations of steam, condensation or dust. Positive air pressure is maintained in ready-to-eat handling areas or other microbiologically sensitive areas.

A 2.2.6

Facilities for waste disposal and storage are provided and clearly identified, leak proof, properly maintained and covered where appropriate. Waste is removed regularly to avoid contamination.

A 2.2.7

The volume, temperature and pressure of potable water/steam are adequate for all operational and cleanup activities.

A 2.2.8

Water storage facilities are maintained in good condition/repair.

A 3. SANITARY FACILITIES

A 3.1 Employees' Facilities

A 3.1.1

Washrooms, lunchrooms and change rooms are maintained to prevent contamination. Washrooms and hand washing stations have hot and cold potable running water, soap dispensers, sanitary hand drying equipment or supplies and a cleanable waste receptacle. Hand washing notices are posted in appropriate areas.

A 4. WATER / STEAM / ICE SAFETY AND SUPPLY

A 4.1 Water, Ice and Steam

A 4.1.1

Water, ice and steam (from all sources) are analyzed at a frequency adequate to confirm their potability. Water and ice potability records include: water source sampling site, analytical results, name of the analyst and date. Water must meet the requirements of Health Canada's "Guidelines for Drinking Water Quality".

A 4.1.2

Water from sources other than municipal supplies must be treated as necessary and tested to confirm potability. This procedure must be formalized in a written water treatment program. Chemical treatment of water is monitored and controlled to deliver correct concentration of chemical and to prevent contamination. Water treatment records include: method of treatment, sample site, analytical result, name of the analyst and date.

A 4.1.3

Where necessary, water storage facilities and recirculated water systems are treated and monitored as appropriate for their purpose.

B. TRANSPORTATION & STORAGE

OBJECTIVE

To prevent the contamination or damage of ingredients, packaging materials, finished products and chemicals during transport, receiving, storage and shipping.

RATIONALE

Transporting and storing ingredients, packaging materials, finished products or chemicals under inappropriate temperatures or conditions can cause significant food safety hazards. An effective transportation and storage program will control these hazards and maintain the safety of the ingredients and finished products.

B 1. RECEIVING

B 1.1 Receiving of Incoming Materials

B 1.1.1

Incoming materials (ingredients, chemicals and packaging materials) are received in an area separate from the processing area.

B 1.1.2

Receiving procedures must include the following:

- Carriers/bulk tanks are inspected on receipt to confirm they are free from contamination and suitable for the transportation of food (if applicable, see Allergen Control Program G);
- Documented bulk-receiving procedures are in place (if applicable);
- Carriers are scheduled, organized and unloaded in a manner that prevents damage and contamination of the incoming materials (see Allergen Control Program G);
- Incoming materials are inspected to ensure they are the correct materials, properly labelled, packaged appropriately, undamaged and free from contamination;
- Incoming materials (including returned product) requiring refrigeration or temperature control are transported at a regulated and/or acceptable temperature for production of safe food, and are appropriately monitored; and
- Frozen materials are transported at a regulated and/or acceptable temperature that does not permit thawing, and are appropriately monitored.

B 1.1.3

Returned, defective or suspect product is segregated and inspected (and tested, if necessary) upon receipt. Procedures are in place to determine appropriate disposition of such product (e.g., rework, disposal).

B 2. STORAGE

B 2.1 Storage of Incoming Materials and Finished Products

B 2.1.1

Incoming materials (including packaging materials) and finished products are handled and stored in a manner to prevent damage, deterioration and/or contamination (if applicable, see Allergen Control Program G). Where appropriate, rotation is controlled.

B 2.1.2

Incoming materials and finished products requiring refrigeration (or temperature control) are stored at a regulated and/or acceptable temperature for production of safe food, and are appropriately monitored. Frozen materials are stored at a regulated and/or acceptable temperature that does not permit thawing and are appropriately monitored.

B 3. INCOMING CHEMICALS PROGRAM

B 3.1 Chemical Control Program

B 3.1.1

All non-food chemicals, water treatment chemicals, boiler treatment chemicals, chemicals for sanitation, pesticides, coatings, paints, lubricants and other materials used for food contact surfaces are listed in the “Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products”, published by the Canadian Food Inspection Agency or a “Letter of No Objection” from Health Canada is obtained.

B 3.1.2

Chemicals are received so that there is no possibility of contamination of food or food contact surfaces.

B 3.1.3

Chemicals are stored in a designated area that is dry, adequately ventilated and where there is no possibility for cross contamination of food or food contact surfaces. Chemicals are stored in clean and correctly labelled containers and handled by authorized personnel only.

B 3.1.4

Where required for ongoing use in food handling areas, chemicals are stored in a manner that prevents contamination of foods, food contact surfaces or packaging materials.

B 4. SHIPPING

B 4.1 Shipping of Finished Products

B 4.1.1

Where required or appropriate, all outgoing materials are shipped in an area separate from the processing area.

B 4.1.2

Shipping procedures must include the following:

- Carriers/bulk tanks are inspected prior to loading to confirm they are free from contamination and suitable for the transportation of food (if applicable, see Allergen Control Program G);
- Documented bulk-loading procedures are in place (if applicable);
- Carriers are scheduled, organized, and loaded in a manner that prevents damage and contamination of outgoing materials (see Allergen Control Program G);
- Outgoing materials are inspected to ensure they are the correct materials, properly labelled, packaged appropriately undamaged and free from contamination;
- Outgoing materials requiring refrigeration or temperature control are transported at a regulated and/or acceptable temperature for production of safe food, and are appropriately monitored; and
- Outgoing products are transported at a regulated and/or acceptable temperature that does not permit thawing, and are appropriately monitored.

C. EQUIPMENT

OBJECTIVE

To design, construct, arrange, operate and maintain equipment in a manner that permits effective cleaning and prevents contamination of food, and to ensure measuring devices that may have an impact on food safety are properly calibrated and function as intended.

RATIONALE

Improperly maintained or calibrated equipment can lead to contamination/spoilage of ingredients, packaging materials and finished products. Loss of control over the function of the equipment results in loss of control of the process and hence the product. Equipment that is improperly constructed or maintained can create physical hazards (e.g., flaking of materials, loss of metal fragments or parts) or provide opportunities for bacterial growth. Over-lubricated or malfunctioning equipment can cause chemical contamination of food or food-contact surfaces. Equipment and measuring devices are often used to measure or monitor parameters that are critical to food safety.

C 1. GENERAL EQUIPMENT

C 1.1 Equipment Design and Installation

C 1.1.1

Where possible, equipment has approval from a recognized certification organization or regulatory agency. Where required, equipment shall meet applicable industry standards.

C 1.1.2

A program is in place to ensure equipment and/or utensils are designed, constructed and installed:

- With food-contact surfaces that are smooth, non-corrosive, non-absorbent, non-toxic, and are free from cracks and crevices;
- To deliver the requirements of the process;
- To be accessible for cleaning, sanitizing, maintenance and inspection;
- To prevent contamination of the product during normal use (i.e., properly exhausted to exterior to prevent condensation problems); and
- To permit proper drainage and/or are connected directly to drains.

C 1.1.3

Equipment and containers for food ingredients, finished products, rework and waste materials are clearly identified through colour-coding or other means.

C 1.1.4

Where required, air used as a processing technique (e.g., pneumatic conveying, air agitation, air blowers, air dryer) is appropriately sourced and treated (e.g., air intakes, filters, compressors) to prevent contamination.

C 1.2 Equipment Maintenance and Calibration

C 1.2.1

An effective preventive maintenance program is in place to ensure that equipment functions as intended and that no hazards result, including:

- A list of equipment requiring regular maintenance, such as:
 - Processing equipment (e.g., ovens, blenders, extruders, pasteurizers, slicers, smokehouses, eviscerators, mixing tanks, metal detectors, conveyors, gas flush packaging equipment, fermentors, processed air, heat sealers);
 - Maintenance equipment (e.g., ventilation systems and their filters, cleaning and sanitizing equipment, traps and vents in waste effluent systems, back-flow or back siphonage devices on water supplies, and maintenance equipment used in maintaining equipment such as voltmeters, hygrometers); and
 - Analytical equipment (e.g., pH meters, scales, thermometers, water activity meters, ATP bioluminescence meter, lux (light) meters, timers).
- Maintenance procedures and schedules (e.g., equipment inspection, adjustment, parts replacements, lubrication) based on the equipment manual or the equipment manufacturer's recommendations or equivalent and, most importantly, on operating conditions that could affect the equipment.

C 1.2.2

An effective calibration program is in place for monitoring equipment and/or control devices that may impact food safety, including:

- A list of equipment requiring calibration (e.g., thermostats, thermometers, metal detectors, scales, pH meters, water activity meter, hygrometer, lux meter);
- Calibration procedures and frequencies based on the accuracy required for internal operations, and conditions and equipment manufacturers recommendations/equipment manual; and
- Procedures necessary for maintaining proper certification for calibration devices (e.g., standard weights, thermometers, lux meters).

D. PERSONNEL/TRAINING

OBJECTIVE

To ensure that employees who come into contact with food, directly or indirectly, are trained in personal hygiene and safe food handling practices, and to ensure that visitors are controlled and conduct themselves in a manner that maintains the safety of the food.

RATIONALE

Establishment personnel play a major role in the production of safe food. Personnel who do not maintain an appropriate degree of personal hygiene, who handle food inappropriately or who have a communicable illness may contaminate food. Effective training increases awareness of potential hazards and reinforces the responsibilities personnel have in minimizing contamination risks.

D 1. GENERAL FOOD HYGIENE

D 1.1 General Food Hygiene Training

D 1.1.1

A policy is in place and enforced to ensure good personal hygiene and hygienic behaviour to prevent contamination of food products. This protocol shall cover hand washing/sanitizing, protective clothing and hygienic practices (e.g., no food, gum, tobacco, jewellery, storage of personal effects in food handling areas).

D 1.1.2

A training program for employees is in place and includes appropriate training (including evaluation) in personal hygiene and hygienic handling of food at the beginning of employment. This training program is reinforced and updated at appropriate intervals.

D 1.1.3

Access of visitors (e.g., contractors, inspection staff, auditors, customers) is controlled to prevent contamination. A visitor hygiene policy is in place that outlines the hygiene procedures and protocols for the facility. All visitors are made aware of this policy prior to entering the production facility.

D 1.1.4

A policy is in place and enforced to prevent personnel suffering from, or thought to be exposed to, a disease transmissible through food from working in food handling areas. The policy requires that employees advise management when they are suffering from a communicable disease likely to be transmitted through food.

D 1.1.5

A training program for employees is in place and includes appropriate training (including evaluation) in disease transmission, and is reinforced and updated at appropriate intervals.

D 1.1.6

Employees having open cuts or wounds do not handle food or food contact surfaces unless the injury is completely protected by a secure waterproof covering (e.g., rubber gloves). A policy is written to deal with contamination from human blood.

D 2. TECHNICAL KNOWLEDGE

D 2.1 Technical Training

D 2.1.1

Personnel are trained (including evaluation) to understand the importance of the critical control points for which they are responsible, the critical limits, the procedures for monitoring, the action to be taken if the limits are not met and the records to be kept. Training is reinforced and updated at appropriate intervals.

D 2.1.2

Personnel responsible for maintenance and calibration of equipment impacting food safety have been appropriately trained (including evaluation) to perform these functions, to identify problems that could affect product safety, and to take appropriate corrective action. Training is reinforced and updated at appropriate intervals.

D 2.1.3

Personnel and supervisors responsible for the sanitation program are appropriately trained (including evaluation) to understand the principles and methods required for effective cleaning and sanitizing (e.g., training specific to the mixing and handling of cleaners and sanitizers; if necessary, training specific to removal of allergenic ingredients). Training is reinforced and updated at appropriate intervals.

D 2.1.4

All employees are provided on-the-job training (including evaluation) appropriate for the complexity of the tasks assigned to them.

E. SANITATION AND PEST CONTROL

OBJECTIVE

To establish effective cleaning and sanitizing procedures for the facility, equipment and utensils.

RATIONALE

An effective sanitation program is essential to minimizing contamination of food. Improper sanitation activities can lead to contamination of food, packaging materials and food contact surfaces. Improper application and concentrations of cleaning and sanitizing chemicals can lead to contamination of foods chemically or by inadequately cleaned equipment.

Pests found in or around the facility (e.g., insects, rodents and birds) can contaminate food, packaging materials, and food contact surfaces (e.g., droppings, larvae, microorganisms or insect parts). The pest control program works with the premises program to ensure the complete control of pests.

E 1. SANITATION

E 1.1 Sanitation Program

E 1.1.1

There is an effective cleaning and sanitation program for all equipment – both clean-in-place (CIP) and clean-out-of-place (COP) – and utensils.

There is an effective cleaning and sanitation program for premises, production areas, storage areas, and all company transport vehicles.

These programs include:

- Master cleaning schedule;
- Procedures for cleaning and sanitizing;
- Procedures to ensure sanitation is carried out in a manner that does not contaminate food and/or packaging materials during or subsequent to cleaning and sanitizing (e.g., aerosols, chemical residues);
- Disassembly and assembly instructions;
- Temperature and pressure requirements for water used in the sanitation program;
- Procedures outlining appropriate chemical use and concentrations; and
- Methodology for routine testing of chemical concentrations.

E 1.1.2

Prior to the start of operations, the facility is checked to verify the sanitation requirements are met (e.g., visual inspections of equipment and surfaces, microbiological swabs).

E 1.1.3

Sanitation procedures required during production are specified, including an operational inspection checklist (e.g., special procedures for non-stop operations, periodic cleaning of sensitive areas).

E 1.1.4

If allergenic residues are an issue, additional cleaning procedures are included in the sanitation program to deal with their removal (refer to Allergen Program G1.2.3). These cleaning procedures must be validated periodically to ensure the method of cleaning is effective for the surface being cleaned.

E 2. PEST CONTROL

E 2.1 Pest Control Program

E 2.1.1

There is an effective pest control program for the premises and equipment that includes:

- The name of the person in the organization assigned responsibility for pest control;
- Where applicable, the name of the pest control company or contractor, and services provided;
- A usage log of chemicals used (in accordance with label instructions), the concentration, the location where applied, and method and frequency of application;
- A current map of all pest control device locations;
- A written inspection program for all pest control devices;
- Procedures for dealing with pest activity, including corrective actions; and
- Provision of licensing and/or certification for pesticide applicators.

F. RECALL

OBJECTIVE

A system is in place to rapidly identify, reconcile (i.e., determine the amount of product produced, in inventory and distributed), and recall any product posing a risk to human health.

RATIONALE

Food recalls can be triggered by biological (e.g., E.coli), chemical (e.g., sanitizer residues), physical (e.g., foreign material), or allergen (e.g., undeclared milk proteins) hazards. The ability to recall implicated products quickly and effectively is critical in preventing or minimizing the risks to consumers.

F 1. RECALL SYSTEM

F 1.1 Recall Program

F 1.1.1

An effective product recall program is in place which includes:

- The person or persons responsible (e.g., recall coordinators);
- The roles and responsibilities for conducting a recall;
- A master list of ingredients and suppliers including contact information (see Supplier Quality Assurance H);
- A master list of finished products and customers including contact information;
- A procedure to document and track customer complaints;
- Methods to identify, locate and control all raw materials, finished products, rework and recalled product;
- A requirement to investigate other products that may be affected by the hazard and therefore included in the recall; and
- A procedure for monitoring the effectiveness of the recall.

F 1.1.2

A current list of the appropriate regulatory contacts (e.g., the Canadian Food Inspection Agency, Alberta Health Services, Alberta Health and Wellness, and Alberta Agriculture and Rural Development) is maintained. The appropriate regulatory contact(s) are notified immediately regarding any recall being carried out. This notification includes the following:

- Amount of product produced, in inventory and distributed;
- Name, size, code or lot numbers of food recalled;
- Area of product distribution (e.g., local, national, international); and
- Reason for the recall.

F 1.1.3

A mock recall process is in place to verify the effectiveness of the recall program. The mock recall process will identify and correct deficiencies in the recall program.

F 2. PRODUCT CODING SYSTEM

F 2.1 Product Code Identification and Distribution Details

F 2.1.1

All food products have permanent, legible code marks or lot numbers on the packages or are capable of being tracked:

- The code identifies the establishment and the day, month and year in which the food was produced;
- When code marks are used, the exact meaning of the code is available; and
- Where used, case codes are legible and represent the container code within.

F 2.1.2

The operator has the ability to trace raw materials from receipt through to finished product.

F 2.1.3

For each lot of product, the following information is in place:

- Details regarding product distribution; and
- Records of customer names, addresses and telephone numbers.

F 3. CUSTOMER COMPLAINT SYSTEM

F 3.1 Customer Complaint Records

F 3.1.1

The operator has a program in place for documenting customer complaints, which shall include:

- Differentiation between quality issues and food safety issues;
- Source of complaint and contact details;
- Description of the problem (e.g. illness, allergy, foreign matter, chemical taste, quality issue);
- Where applicable, details of injury or illness;
- Product details including product name, package size, identifying codes; and
- For consumer complaints, retailer information including store where purchased and date of purchase.

F 3.2 Customer Complaint Investigation

F 3.2.1

All complaints are investigated to validate the complaint and determine the root cause. The investigation must be thorough and the following information recorded:

- Date and time of investigation;
- Individual responsible for the investigation;
- Cause of the problem;
- Other products affected (if any), including identifying codes and sizes; and
- Corrective actions taken.

G. ALLERGEN CONTROL

OBJECTIVE

A program is in place to effectively control the presence of allergens in food products.

RATIONALE

Food allergies can cause immune responses in sensitive individuals that can be life threatening. Many food recalls are due to foods becoming cross-contaminated with allergens or failure to declare allergens on the label. An effective allergen control program will help reduce this very serious risk.

The current list of the most common food allergens, gluten sources and added sulphites includes: peanuts, tree nuts, eggs and egg products, milk and dairy products, seafood (fish, crustaceans and shellfish), soy, wheat, sesame seeds, mustard, identified gluten sources, and sulphites (Health Canada). As allergies and sensitivities vary, there may be others to consider. All possible ingredients or processing aids must be assessed in the HACCP Plan.

G 1. ALLERGEN PROGRAM

G 1.1 Allergen Identification

G 1.1.1

An effective written program is in place that outlines how allergens are identified and controlled. This program includes the following:

- A master list of all ingredients, processing aids and packaging that clearly identifies those which are, or contain, allergens;
- Secondary ingredients (e.g., spices, flavourings, additives, release agents, colourings) are considered and listed;
- A master list of all finished products that clearly identifies those containing allergens; and
- A requirement that ingredient suppliers can verify they have an effective allergen control program.

G 1.2 Allergen Control

G 1.2.1

Procedures are in place for control during the transport, receiving, and storage of ingredients and finished products containing allergens. These items are segregated, clearly labelled, and handled in such a manner to prevent contamination of other ingredients, packaging materials and finished products.

G 1.2.2

Procedures are in place to dedicate processing equipment or areas or to segregate production through scheduling when using ingredients/products containing allergens.

- When scheduling and rescheduling production, ingredients/products with allergens must be considered.
- Procedures are in place to control allergens during product changeover. Equipment, packaging and staff must be considered.

G 1.2.3

Additional sanitation procedures are in place for products containing allergens (refer to Sanitation Program E 1.1.4). These cleaning procedures must be validated periodically (and upon reformulation) to ensure the method of cleaning is effective for the surface being cleaned. Validation procedures must be appropriate for the level of risk associated with the process.

G 1.2.4

Procedures are in place to control rework and reformulation activities for products containing allergens.

G 1.2.5

Procedures are in place for training employees on the handling of ingredients/products containing allergens (refer to Personnel Training Program).

G 2. PRODUCT LABELLING AND PACKAGING

G 2.1 Labelling and Packaging

G 2.1.1

Products containing allergens are properly labelled to identify allergens. Procedures are in place to ensure labels remain current and accurate after reformulation.

H. SUPPLIER QUALITY ASSURANCE

OBJECTIVES

A program is in place to ensure that suppliers of food ingredients, packaging materials, equipment and other materials meet food safety requirements.

RATIONALE

Ensuring that vendors supply safe ingredients, packaging materials and equipment is an effective first defense for preventing contaminants from entering the facility. Ensuring ingredients meet the required level of safety is essential to producing safe finished products.

H 1. PROGRAM

H 1.1 Supplier Program Requirements

H 1.1.1

An effective supplier quality assurance program is in place to ensure suppliers of food ingredients/packaging/equipment have guaranteed adherence to a food safety system or equivalent system. The supplier quality assurance program must include:

- A vendor approval process, including a means to assess and confirm that suppliers utilize a food safety system (e.g., audit of suppliers, questionnaires, letters of guarantee).

H 1.1.2

For each ingredient, an approved supplier list shall exist and be available to individuals responsible for purchasing and quality control. This list must include:

- Supplier name, address, key contact and phone number;
- Ingredient name and internal code;
- Trade name of ingredient and description of secondary ingredients; and
- Supplier code number.

H 2. PRODUCT

H 2.1 Product Specifications

H 2.1.1

For each incoming material, specifications are developed and maintained that define the important characteristics pertaining to food safety (e.g., microbiological, chemical and/or physical characteristics).

H 2.1.2

Procedures are in place to receive and review incoming materials to ensure adherence to product specifications. Verify, through evaluation or documentation (i.e. COAs), that incoming ingredients meet specifications.

PRODUCT PROTECTION

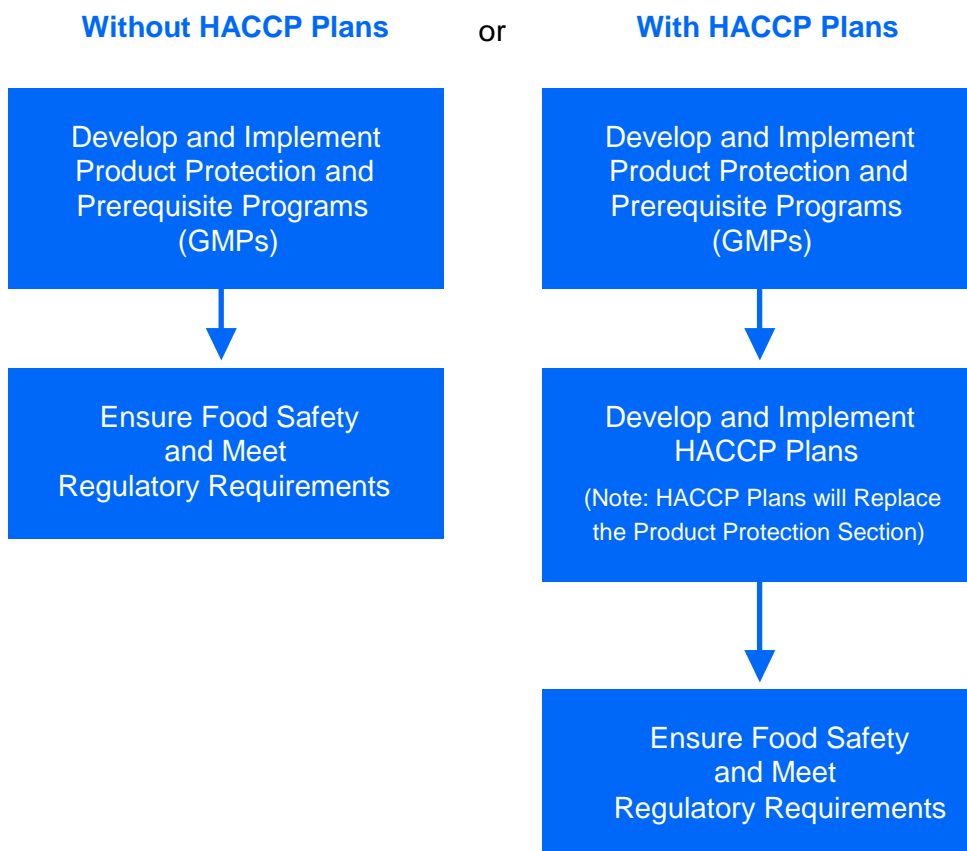
SCOPE OF THE PRODUCT PROTECTION SECTION

Critical factors to food safety must be controlled through the documentation and implementation of a product protection program or HACCP plans.

In general, most operators monitor processes that are critical to food safety, however they often do not document these activities in a formal program.

Important note: For processors who **do not** have documented and implemented HACCP plans, this section **must** be addressed to control the critical factors to food safety. For processors who **do** have HACCP plans developed and implemented, this section **does not** have to be addressed.

If you are beginning the development and implementation of your food safety system, you should develop your product protection program first. The development and implementation of prerequisite programs can take several months to complete. During this time, it is very important to have a product protection program in place to ensure the control of critical factors to food safety.



Product Protection

OBJECTIVES

To identify the critical factors to food safety, and to control those factors (and the process) through documentation and implementation of a formal, documented product protection program.

RATIONALE

Inappropriate control of critical factors may result in biological, chemical, physical and allergenic hazards in the food being produced. An effective documented program will verify the control of these critical factors.

IDENTIFICATION AND CONTROL OF CRITICAL FACTORS

The processor shall evaluate all steps in the manufacturing of the food product as follows:

- Determine all critical factors in the production process;
- Determine limits for each critical factor;
- Develop monitoring procedures for the critical factors, including frequency of monitoring, who will do the monitoring and how this will be done (the level of risk apparent with that product will help determine the frequency);
- Develop corrective actions for when limits are not met; and
- Develop verification procedures for the monitoring of critical factors.

Critical steps/factors to address in your product protection section may include, but are not limited to:

CRITICAL PROCESS	CRITICAL FACTORS
Cooking	Time/temperature
Cooling	Time/temperature
Formulation	pH, concentration (ppm, nitrite levels)
Dehydration	Water activity
Metal detection	Sensitivity (test sphere)
Blending	Time/formulation
Skinning	Microbiological criteria
Sifting	Mesh size
Chlorination	Concentration
Ozonation	CT
Filtration	Filter size
Freezing (fish, pork, wild game) for parasite control	Time/temperature

Documentation of Critical Factors

The processor keeps records that provide necessary proof that the critical limits necessary for food safety are met.

- Monitoring and verification activities are documented at a suitable frequency; and
- Deviations and corrective actions are documented when critical limits are not met.

Verification of Critical Factors

A third party to the monitor verifies that monitoring activities are conducted as written and that records are kept.

- Verification procedures are documented including who does the verifying, what and how it is done, and the frequency; and
- Verification procedures include a review of records, corrective actions and onsite activities to ensure the monitor is conducting the activities correctly as per the written procedures.

When monitoring critical factors, the operator may need to consider employee practices, equipment used, maintenance activities, sanitation practices and general facility maintenance. Depending on the facility, processes and level of risk, procedures may need to be in place to ensure these activities do not lead to product contamination.

PART II HACCP PLANS



FORM 1

PRODUCT DESCRIPTION

PROCESS / PRODUCT TYPE NAME: _____

1. PRODUCT NAME(S)
2. IMPORTANT PRODUCT CHARACTERISTICS (e.g., AW, pH, PRESERVATIVES)
3. HOW IT IS TO BE USED
4. PACKAGING
5. SHELF LIFE
6. WHERE IT WILL BE SOLD
7. LABELLING INSTRUCTIONS
8. SPECIAL DISTRIBUTION CONTROL

HACCP Plan: FORM 1 - PRODUCT DESCRIPTION

Issue date: _____

Developed by: _____ Date Last revised: _____

Authorized by: _____ Date authorized: _____



Instructions
 Identify Hazards by placing a:
 (B) Biological
 (C) Chemical
 (P) Physical, or if applicable to your operation,
 (A) Allergens
 directly adjacent to the items listed

FORM 2

LIST OF PRODUCT INGREDIENTS AND INCOMING MATERIALS

PRODUCT NAME: _____

List incoming raw materials and ingredients by product	List all incoming processing aids	List all incoming packaging materials
_____	_____	_____
_____	_____	_____

HACCP Plan: FORM 2 - LIST OF PRODUCT INGREDIENTS AND INCOMING MATERIALS

Issue date: _____

Developed by: _____ Date Last revised: _____

Authorized by: _____ Date authorized: _____



Instructions
Construct a process flow diagram from incoming ingredients through to finished product. Number each step in the process and identify potential Biological (B), Chemical (C), Physical (P) or Allergen (A) hazards associated with each step, and if applicable, clearly identify each Critical Control Point (CCP).

FORM 3
PROCESS FLOW DIAGRAM

PRODUCT NAME(S): _____

HACCP Plan: FORM 3 - PROCESS FLOW DIAGRAM

Issue date: _____

Developed by: _____ Date Last revised: _____

Authorized by: _____ Date authorized: _____



Instructions
Construct a plant schematic of the facility, identifying all equipment and rooms. Indicate the flow of product as well as employee traffic patterns. Identify all potential cross contamination points, whether Biological (B), Chemical (C), Physical (P) or Allergen (A).

FORM 4

PLANT SCHEMATIC

PRODUCT NAME(S): _____

A large, empty rectangular box with a blue border, intended for drawing the plant schematic. In the top right corner of this box, there is a small blue icon consisting of an upward-pointing arrow with the letter 'N' next to it, indicating North.

HACCP Plan: FORM 4 - PLANT SCHEMATIC

Issue date: _____

Developed by: _____ Date Last revised: _____

Authorized by: _____ Date authorized: _____



Instructions
 List all Biological (B), Chemical (C) or Allergen (A) hazards that are not controlled by the operator.

FORM 6

HAZARDS NOT CONTROLLED BY OPERATOR

PRODUCT NAME(S): _____

HAZARDS NOT CONTROLLED BY OPERATOR	
HAZARDS	INDICATE HOW THE HAZARD COULD BE ADDRESSED (e.g., COOKING INSTRUCTIONS, PUBLIC EDUCATION, USE BEFORE DATE)
Incoming Materials	
Process Steps	

HACCP Plan: FORM 6 - HAZARDS NOT CONTROLLED BY OPERATOR
 Issue date: _____
 Developed by: _____ Date Last revised: _____
 Authorized by: _____ Date authorized: _____

PART III REQUIREMENTS FOR CERTIFICATION AND RECOGNITION

Requirements for Certification and Recognition Under the Alberta HACCP Advantage Program

The following pages provide a brief overview of the requirements for certification and recognition under the Alberta HACCP Advantage (AHA!) Program. For more information regarding AHA! Recognition, please refer to the (AHA!) Recognition Protocol.

There are several reasons processors may wish to use the AHA! Standard to develop or improve their food safety system. These include:

- Enhanced food safety;
- Increased consumer confidence;
- Maintained or improved market access;
- Reduced waste and recalls;
- Reduced liability; and
- Compliance with regulatory or customer requirements.

Regardless of your motives for implementing a food safety system, you may wish to have your system certified and recognized under the Alberta HACCP Advantage Program.

There are two forms of certification available under AHA!.

1. AHA! GMP Certification – achieved by implementing and maintaining the AHA! Standard Prerequisite Programs (GMPs) and Product Protection program.
2. AHA! HACCP System Certification – achieved by implementing and maintaining the AHA! Standard Prerequisite Programs (GMPs) and HACCP Plans. (Note: When implementing a full HACCP system, the HACCP plans replace the Product Protection program.)

If you already operate under a food safety system that you would like to have certified and recognized by the Alberta HACCP Advantage Program, you need to ensure that your program meets the requirements of the AHA! Standard. You will also have to clearly cross-reference the AHA! Standard bullet points to your program.

There are three major steps to achieving recognition under the AHA! Program, involving three major parties:

STEP	ACTIVITY	PARTY INVOLVED
1	Food safety system Implementation	The Operator
2	Successful food safety system audit and Certification of the food safety system	Independent, external, Certification Body
3	Government of Alberta Recognition	Alberta Agriculture Rural Development (ARD)

Each of the parties involved has clear roles and responsibilities. Following is a brief summary of each party's roles and responsibilities:

Role of Industry (The Operator)

- Meet all applicable provincial and federal regulatory requirements as they relate to the food product or commodity being produced;
- Maintain licensing with the appropriate regulatory agency (if applicable);
- Provide management commitment to the food safety system through a letter of commitment;
- Develop, implement and maintain the food safety system, including maintaining appropriate documentation control; and
- Ensure that appropriate staff members are trained in their areas of responsibility.

Note: All the provisions, powers and authorities under existing acts and regulations continue to apply. Where the provincial government has no acts and regulations to enforce, the appropriate federal acts and regulations apply.

Role of the Certification Body

- Audit the food safety system to ensure it meets the requirements of the AHA! Standard, is implemented as written and is effective in controlling the food safety hazards;
- Provide written assurances of successful certification to the operator and to ARD;
- Conduct annual audits for maintaining certification; and
- Conduct audits in a fair, open and impartial manner.

Role of Alberta Agriculture and Rural Development

- Develop, implement and maintain the AHA! Standard, AHA! Recognition Protocol and resource materials for processors to use in the implementation of their food safety system;
- Designate and oversee the third party certification body; and
- Develop, implement and maintain a management system that outlines how key areas of the program will be updated, monitored for performance and continuously improved.

Eligibility Criteria for Certification and Recognition Under the AHA! Program

In order to be eligible for certification audits under the AHA! Program these five criteria must be met and maintained:

1. Demonstration of Management Commitment

- A letter of endorsement signed and dated by senior in-plant management is required to confirm management's commitment and support for the implementation and maintenance of the food safety system. As a minimum this letter should include:
 - Indication of management's full support and commitment to the implementation and maintenance of the food safety system (including a commitment to providing adequate training and resources);
 - A statement confirming the accuracy of the information outlined in the documentation package; and
 - Designation of a person/position to be responsible for the food safety system.
- This letter should be reviewed on an annual basis and updated as needed.
- A new letter of endorsement will be required when the ownership of the facility changes or the original signatory of the letter is no longer part of senior management.

2. Adherence to Current Regulations

- The facility must have an effective policy statement that commits to complying with all applicable legal requirements; and
- The facility must have procedures in place for identifying and keeping current with applicable legal requirements.

3. Food Safety System Documentation

3a. Prerequisite Programs Documentation Requirements

- The operator must develop, implement and maintain prerequisite programs that conform to the requirements of the AHA! Standard. For each prerequisite program requirement as outlined in the AHA! Standard, the written programs must contain:
 - Monitoring procedures that include:
 - Employee name(s) or position(s) responsible for monitoring;
 - What and how monitoring is conducted;
 - Frequency of monitoring; and
 - Records for documenting monitoring activities.

- Deviation procedures (or corrective actions) that include:
 - Employee name(s) or position(s) responsible for carrying out deviation procedures;
 - How the deviation procedures are conducted;
 - Records for documenting the deviation procedures; and
 - Note that deviation procedures are conducted when a deviation occurs (i.e., as needed).
- Verification procedures that include:
 - Employee name(s) or position(s) responsible for verification procedures;
 - How verification procedures are conducted;
 - Frequency of verification procedures; and
 - Records for documenting the verification procedures.
- Each program must be dated and signed by a responsible person or HACCP coordinator and have adequate documentation control with revision dates.

3b. Product Protection Program Documentation Requirements

- The operator must develop, implement and maintain product protection programs/procedures that conform to the requirements of the AHA! Standard. These must include:
 - A list and description of all products and all processes;
 - Documentation of critical factors in the production process; and
 - Documentation of all control measures (proving that they are effective to prevent, eliminate or reduce to an acceptable level of risk the food safety hazard associated with the product(s) or process(s) in question).
- For each critical factor, the applicant must document:
 - Critical limits;
 - Monitoring procedures that include:
 - Employee name(s) or position(s) responsible for monitoring;
 - What and how monitoring is conducted;
 - Frequency of monitoring; and
 - Records for documenting the monitoring activity.
 - Deviation procedures (or corrective actions) that include:
 - Employee name(s) or position(s) responsible for carrying out deviation procedures;
 - How the deviation procedures are conducted;
 - Records for documenting deviation procedures; and
 - Note that deviation procedures are carried out when a deviation occurs (i.e., as needed).

- Verification procedures that include:
 - Employee name(s) or position(s) responsible for conducting verification procedures;
 - How verification procedures are conducted;
 - Frequency of verification procedures; and
 - Records for documenting verification procedures.
- All pages of the product protection program must be dated and signed by a responsible person or HACCP coordinator and have adequate documentation control (with revision dates).
- Where applicable, reference is made to scientific literature or background to support decisions.

3c. HACCP Plan Documentation Requirements

- The operator must develop, implement and maintain HACCP plans that conform to the requirements of the AHA! Standard. These must include:
 - Written HACCP plan(s) containing all the necessary material as defined in the AHA! Standard;
 - An adequate description of all products and processes, grouped into appropriate HACCP plan(s). All products produced must fall under a documented HACCP plan; and
 - Effective control measures to prevent, eliminate or reduce to an acceptable level of risk any commonly accepted food safety hazards associated with the product(s) or process(es) in question.
- For those processes that are critical control points (CCPs), documentation must describe:
 - Critical limits;
 - Monitoring procedures that include:
 - Employee name(s) or position(s) responsible for monitoring;
 - What and how monitoring is conducted;
 - Frequency of monitoring; and
 - Records for documenting the monitoring activity;
 - Deviation procedures (or corrective actions) that include:
 - Employee name(s) or position(s) responsible for carrying out deviation procedures;
 - How the deviation procedures are conducted;
 - Records for documenting deviation procedures; and
 - Note that deviation procedures are carried out when a deviation occurs (i.e., as needed).
 - Verification procedures that include:
 - Employee name(s) or position(s) responsible for conducting verification procedures;
 - How verification procedures are conducted;
 - Frequency of verification procedures; and
 - Records for documenting verification procedures.

- Where applicable, include
 - References to scientific literature or background materials used to support decisions made in the HACCP Plan(s); and
 - Validation of CCPs to ensure they effectively and consistently control the hazard.
- Each page of the HACCP Plan must be dated and signed by a responsible person or HACCP coordinator and have adequate documentation control with revision dates.

3d. Additional HACCP System Documentation Requirements

- Names of the HACCP team leader and HACCP team members (if applicable);
- A bibliography of scientific literature and background materials used to support decisions made regarding the HACCP system;
- Documentation indicating that all written prerequisite programs are implemented;
- Documentation indicating that all written HACCP Plan(s) are implemented; and
- A list of all applicable records.

4. Maintenance of the Food Safety System

The operator must have written procedures detailing how the entire food safety system is maintained and updated on an annual basis. The procedures must describe how each component of the food safety system is evaluated and will include a schedule indicating when this is to be completed.

As a minimum, these written procedures must include:

- What is to be reviewed;
- How it will be reviewed (e.g., observation, sampling, documentation review, internal audits, third party assessment);
- The specified frequency of the review;
- Who is responsible for the review and making the changes to the food safety system;
- Procedures to be followed when a deviation is found;
- Records to show the reviews are performed;
- Where required, pages that are replaced must be signed and dated; and
- A system to ensure that all changes made to the food safety system are documented in a log book. The log book must indicate:
 - A description of the changes;
 - Where the changes occur in the food safety system;
 - The date on which changes were implemented;
 - Who performed the changes; and
 - Verification that the changes were made and are effective.

The annual review of the food safety system must:

- Review all sub-elements within the prerequisite programs to ensure that procedures continue to reflect current establishment practices, processes, equipment, and continue to be efficient and effective.
- Review the product protection program/procedures (for AHA! GMP Certification) OR the HACCP plan(s) (for AHA! HACCP System Certification) to ensure the hazards are still relevant and under control, including:
 - Programs, procedures and/or plans continue to reflect current establishment practices, processes, and equipment;
 - Critical limits continue to effectively control the hazard and meet regulatory requirements;
 - Monitoring, deviation and verification procedures continue to be efficient and effective; and
 - For HACCP plans, a review of validation studies of all CCPs to ensure that the CCP continues to control the identified hazard.

The maintenance of the food safety system must also include procedures for updating the system due to:

- Changes in regulatory requirements;
- Changes to product formulations; and
- Introduction of new technologies in the plant that may impact product safety.

5. Documentation Control

It is the operator's responsibility to establish documentation control and ensure that:

- All pages found in the food safety system are dated in order to identify the most up-to-date version;
- The HACCP coordinator, or the designated responsible person, signs the first page of each prerequisite program and all pages of a product protection program/procedures or HACCP plan;
- Changes to pages of the food safety system are dated, signed, and distributed to all users; and
- Only the most up-to-date version of a document is in use and all obsolete documents are promptly removed.

GLOSSARY OF TERMS

Glossary of Terms

Allergens

Substances that cause an allergic response in some individuals and may cause a runny nose, water and/or itchy eyes, a rash, wheezing, anaphylactic shock or death.

Audit

An examination of a facility's HACCP system that can be conducted by internal staff or external auditors.

Biological Hazard

Any microorganism, or toxin produced by a microorganism, that can cause foodborne illness when ingested.

Calibrate

The process of adjusting an instrument for accuracy relative to an established standard.

Canadian Food Inspection Agency (CFIA)

The federal government body responsible for delivery of all federal inspection services related to food, animal health and plant protection.

Certification

The status obtained after a successful Alberta HACCP Advantage certification audit.

Certification Body

An organization that will conduct audits and provide certification of compliance to certain standards.

Certificate of Analysis

Documentation that denotes a qualitative or quantitative property of a food product based on scientific analysis.

Chemical Hazard

Any chemical that may be toxic to humans and may cause immediate or long-term negative effects when ingested or inhaled.

Codex Alimentarius Commission

A commission set by the Food and Agriculture Organization (FAO) and World Health Organization (WHO) of the United Nations to develop internationally recognized food standards, guidelines and related text such as code of practice. The "Recommended International Code of Practice - General Principles of Food Hygiene" is an example of a code of practice developed by the Codex Alimentarius Commission.

Communicable Disease

An illness in humans that is caused by an organism or microorganism or its toxic products and is transmitted directly or indirectly from an infected person, animal or the environment.

Contamination

The presence of hazard(s) in food that can be harmful to humans. Hazards can be biological, chemical or physical.

Corrective Actions

Measures taken to regain control of a hazard, determine product disposition, and prevent problem reoccurrence.

Corrosion-resistant Materials

Materials resistant to deterioration due to the action of water, air or acid. A metal or alloy that is susceptible to destruction, especially by oxidation or chemical action, is said to be “corrodible”.

Critical Control Point

A step or point in a process at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level.

Critical Limit

The maximum or minimum value to which a biological, chemical or physical parameter must be controlled to prevent, eliminate or reduce the occurrence of a food safety hazard to an acceptable level.

Cross contamination

This occurs when disease-carrying microorganisms are transferred from one food or surface to another, carried by utensils, hands, towels or other food. Cross-contamination of food is a common factor in the cause of foodborne illnesses.

Deviation

In a food safety system this refers to a failure to meet the standard operating procedure (SOP) or the critical limit.

Disposition

See “product disposition”.

Edible Product

Any substance that can be used as food.

Environmental Contaminants

The presence of hazardous substances in the environment.

Establishment

Any building or facility, including the surrounding area, in which food is processed or handled.

Flow Diagram

A systematic representation of the sequence of steps or operations used in the production or manufacture of a particular food item.

Food

Any substance, including water and ice, manufactured, sold or intended for use in whole or in part as food or drink for human consumption but does not include a drug, medication or health related product regulated under the Pharmaceutical Profession Act or the Food and Drugs Act.

Food Contact Surface

The surface of equipment or utensils with which food normally comes into contact.

Food Safety System

A science based system which complies with all legislated food safety requirements and consists of risk-based written programs to ensure food is processed safely.

Foreign Material

Any substance or object that does not inherently belong in a food product and may cause injury or illness upon ingestion.

Good Manufacturing Practices

The activities and procedures used to ensure that personnel, the manufacturing environment, and other factors that are not directly related to food, are monitored and controlled to create conditions that are favorable for the production of safe food products.

HACCP

Hazard Analysis and Critical Control Point – a science-based system that prevents, eliminates or reduces to an acceptable level hazards that are significant for food safety.

HACCP Plan

The documents, programs and activities prepared in accordance with the principles of HACCP to ensure control of hazards that are significant for food safety.

HACCP System

A system which includes prerequisite programs and HACCP plans. The HACCP system is a science-based and systematic strategy that identifies specific hazards and measures for their control to ensure food safety, through control points or critical control points. The acronym stands for Hazard Analysis Critical Control Point.

Hazard

A biological, chemical (including allergens) or physical agent that is reasonably likely to cause illness or injury in the absence of its control.

Immune Response

A bodily defense reaction that recognizes an invading substance (an antigen: such as a virus, bacteria or allergen) and produces antibodies specific against that antigen.

Lot Number

A distinct code for each product on each container. A distinctive combination of letters, numbers or both, assigned to a specific identifiable batch of production.

Microbiology

The branch of biology that deals with microorganisms (organisms of microscopic or submicroscopic size) and their effects on other living organisms.

Mock Recall

A process designed to assess the effectiveness of a company's recall program, and the readiness of the recall team. A test recall is conducted, in which all of the steps of the recall program are followed, except that no product is actually recalled. Mock recalls can also help to identify any gaps in traceability or problems that have developed, such as new employees not following established protocols.

Monitoring

The act of conducting a planned sequence of observations or measurements of control parameters to assess whether a Critical Control Point (CCP) or specific prerequisite control program is under control.

Operational Separation

Refers to the separation of processing activities, by means other than physical separation, to ensure incompatible processing activities do not cause product contamination; commonly a separation in time, following sanitation or through use of some other procedure.

Operator

A person operating or engaging in business.

Personal Hygiene

The combination of an individual's practices and style that relates to cleanliness (e.g., healthy habits that include bathing, wearing clean clothing and, most importantly, washing hands frequently before handling edibles to contribute to the safe delivery of food).

Pest

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

Physical Hazard

Any foreign material that could cause injury or illness if ingested.

Physical Separation

Refers to the separation of processing activities by physical means to ensure incompatible processing activities do not cause product contamination; commonly a wall or separate processing rooms.

Pesticide

A substance that is used to prevent, destroy or repel any insect, nematode, rodent, predatory animal, parasite, bacteria, fungus, weed or other form of plant or animal life. Rodenticide and herbicide are commonly used terms as well.

pH

A way of expressing the acidity or alkalinity of substances. It is expressed on a scale from 0 to 14, where 0 is extremely acidic, 7.0 is neutral and 14 is extremely alkaline.

Potable Water

Water that is safe for human consumption. It meets provincial and/or federal water quality standards.

Prerequisite Programs

The activities and procedures used to ensure that personnel, the manufacturing environment, and other factors that are not directly related to food, are monitored and controlled to create conditions that are favourable for the production of safe food products.

Product Disposition

The end decision made when determining the outcome of a particular food product, usually associated with held, suspect, or returned food products (e.g., the product disposition for the held meat products was disposal).

Product Protection Program

Program or procedures documented and implemented to ensure critical factors to food safety are controlled.

Rationale

An explanation of fundamental reasons.

Recall

A system by which products that may be hazardous to consumers are removed from the marketplace.

Recognition

The status obtained from AAFRD after the Alberta HACCP Advantage certification has been granted by a third party certification body.

Record (noun)

The result of documenting a specific task or measurement.

Reference Listing of Accepted Construction Materials, Packaging Materials and Non-Food Chemical Products

A current list of materials and non-food chemicals that have been found by the CFIA to be acceptable for use in establishments operating under the authority of the agency. This publication indicates the acceptability of products intended for use in establishments.

Rework

The inclusion of partially or fully-processed product that has been reconditioned by reprocessing in another product.

Sanitation

This refers to the application of some method or material to equipment to destroy pathogens (disease causing organisms) and as many other organisms as is practical. Such treatment should not damage the equipment or the product. A surface must be physically clean in order to be effectively sanitized. The end result is surface which is not sterile, but is safe from a public health standpoint, and which contributes to food protection and an extended shelf life.

Sanitize

To treat a surface in such a way as to reduce the microorganism population to a level that does not constitute an unsanitary condition.

Segregated

Separated or isolated from others or a main group (e.g., segregate returned product).

Specification

A detailed, exact statement of prescribed requirements for incoming materials or finished products.

Traceability

The ability to follow inputs and products, their location and their associated history, use and attributes backwards and forwards throughout the food chain.

Validation

The process of obtaining evidence that the elements of the HACCP Plan are effective.

Verification

The application of methods, procedures, tests and other evaluations in addition to monitoring, to determine compliance with the HACCP system (e.g., checking to make sure the correct temperature has been reached).

Water Activity (A_w)

The availability of water in food for bacterial growth. It is described in relation to the A_w of pure water (1.00).

Water Treatment

The use of chemicals or filtration for the purposes of making water potable, or for preparation for boiler use.

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