ALBERTA HACCP ADVANTAGE
STANDARD

Food Safety Division
Alberta Agriculture, Food and Rural Development

Canada

The Agricultural Policy Framework (APF)
A FEDERAL-PROVINCIAL-TERRITORIAL INITIATIVE
Aussi disponible en français

Alberta

The Food Safety Division of Alberta Agriculture, Food and Rural Development, 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.

The Alberta HAACP 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 or exceeds 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 8 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 7 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. This Standard can be used to develop and implement a full HACCP System or you can choose to use only certain components of the Standard to improve your current food safety system.

Prerequisite Programs		**HACCP Plan(s)**		**HACCP System**
Prerequisite Programs are 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 (i.e., the 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 system. Implemented properly, it will meet the requirements of an effective 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.

The Prerequisite Programs in this Standard are broken down as follows:

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 bullet within the Prerequisite Programs. For example, procedures must include:

- **Who** conducts the activity or procedure.
- **What** they do and **how** they do it.
- **When** they do it (i.e., the frequency).
- **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).
- **Records** are completed to provide documentation (i.e. evidence) that the activity is being carried out effectively.

It is important to note that during the documentation and implementation of a food safety system you must still control those factors that are critical to food safety (e.g. cooking of food, screening, metal detection). For this reason the first thing you may wish to do is read the Product Protection section of this Standard and ensure you are addressing those factors that are critical to food safety.

Depending on your knowledge of HACCP Systems you may be able to implement an effective food safety program using this Standard alone. When developing and implementing this Standard you will need to ensure the Prerequisite Programs and HACCP Plan(s) effectively control the hazards, are auditable, and meet the regulatory requirements for your jurisdiction.

A guidebook and other resource materials are available from AAFRD to assist you in the process of implementing a HACCP System that meets the Alberta HACCP Advantage Standard.

If you have any 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 very 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.
- 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.
- Use of improper light bulbs or fixtures in processing areas can cause physical hazards to food should breakage occur.

A. PREMISES - A 1. BUILDING EXTERIOR

A 1.1 Outside Property and Building

A 1.1.1
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
Building exterior is designed and constructed to prevent entry of contaminants and pests (e.g., 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
Building exterior is appropriately maintained to prevent entry of contaminants and pests (e.g., no unprotected openings, walls and foundation are maintained to prevent leakage).

A. PREMISES – 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 result in the contamination of the environment or food.

- Floors are sufficiently sloped to permit liquids to drain to trapped outlets or are designed for ease of cleaning.
- Joints are sealed and angles are coved, where appropriate.
- 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 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.
- Lighting is adequate enough to ensure 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 prevent unacceptable accumulations of steam, condensation or dust and to remove contaminated air.

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
As required, washrooms, lunchrooms and change rooms are provided with adequate floor drainage and ventilation. These areas are separate from, and do not open directly into, food processing areas.

A. PREMISES – A 2. BUILDING INTERIOR

A 2.1 Design and Construction cont.

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. These systems do not pass directly over or through production areas unless they are controlled to prevent contamination. The systems are equipped with appropriate traps and vents.
- Sufficient waste disposal areas are located, ventilated and refrigerated (where necessary) to prevent cross contamination of edible product.

A 2.1.8
Equipment cleaning and sanitizing facilities are constructed of corrosion-resistant materials capable of being easily cleaned. They are adequately 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.

A 2.1.10
Where necessary, water storage facilities and re-circulated water systems are adequately designed and constructed to prevent contamination.

A 2.1.11
Plans for all new construction, whether for new facilities or renovation of existing facilities, shall be approved by the appropriate government agency (e.g., Alberta Agriculture Food and Rural Development, Regional Health Authority).

A. PREMISES – A 2. BUILDING INTERIOR

A 2.2 Premises Maintenance

A2.2.1
Floors, walls, ceilings and overhead structures are appropriately maintained to ensure they do not contribute to 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 policy and procedures are in place to control glass and plastics in the plant. This must include:

- A written glass and plastics policy which states no glass or plastics are to be used in the plant except where absolutely necessary.
- An inventory of all essential glass and plastics shall be compiled, and the items on the list shall be monitored on a regular basis.
- A procedure for handling and investigating any glass or plastics that are broken in the plant.

A 2.2.4
Lighting is maintained such that so 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 2.2.5
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 where appropriate are covered. Waste is removed at an appropriate frequency to minimize contamination.

A 2.2.7
The volume, temperature and pressure of potable water/steam are adequate for all operational and cleanup demands.

A 2.2.8
Water storage facilities are maintained in good condition/repair.

A. PREMISES - 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. PREMISES - 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, 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 must be formalized in a water treatment program. Chemical treatment of water is monitored and controlled to deliver the desired concentration of chemical and to prevent contamination. Water treatment records include: method of treatment, sample site, analytical result, analyst and date.

A 4.1.3
Where necessary, water storage facilities and recirculated water systems are treated and monitored as appropriate for the intended 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. TRANSPORTATION AND STORAGE - 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 arranged 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 are transported at a regulated and/or acceptable temperature for production of safe food, and are appropriately monitored.
- 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. TRANSPORTATION AND STORAGE - B 2. STORAGE

B 2.1 Storage of Incoming Materials and Finished Products

B 2.1.1
Incoming materials, packaging materials, and finished products are handled and stored in a manner to prevent damage, deterioration and/or contamination. Where appropriate, rotation is controlled (if applicable see *Allergen Control Program - G*).

B 2.1.2

Incoming materials and finished products requiring refrigeration 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. TRANSPORTATION AND STORAGE
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 Chemicals 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. TRANSPORTATION AND STORAGE - 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 loaded and arranged in a manner that prevents damage and contamination of the food and packaging materials (see *Allergen Control Program - G*).
- Finished products are inspected to ensure they are the correct materials, properly labelled, packaged appropriately, not damaged and free from contamination.
- Finished products requiring refrigeration are transported at a regulated and/or acceptable temperature for production of safe food, and are appropriately monitored.
- Frozen finished 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 its effective cleaning and prevents contamination of food. Also to ensure measuring devices, which may have an impact on food safety, are properly calibrated and function as intended.

RATIONALE:

Improperly maintained or calibrated equipment can lead to contamination 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 present physical hazards (e.g., flaking of materials, loss of metal fragments or parts) or provide areas 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. EQUIPMENT - C 1. GENERAL EQUIPMENT

C 1.1 Equipment Design and Installation

C 1.1.1

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

C1.1.2

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 where possible 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).
- To permit proper drainage and where appropriate, are connected directly to drains.

C 1.1 Design and Installation cont.

C 1.1.3
Equipment and containers for food ingredients, finished products, rework and waste materials are clearly identified through color-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 control any source of 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.

This includes:

- 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).
    - Analytical equipment (e.g., pH meters, scales, thermometers, water activity meters, ATP bioluminescence meter, lux (light) meters, timers).
- Maintenance procedures and frequencies (e.g., equipment inspection, adjustment, parts replacements, lubrication). The activity shall be based on the equipment manual or the equipment manufacturer's recommendations or equivalent and is ultimately based 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. This includes:

- 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. These shall be dependent on the accuracy required for internal operations and conditions and may be based on equipment manufacturers recommendations (i.e., equipment manual).
- 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, either directly or indirectly, are trained in personal hygiene and safe food handling practices. Also to ensure 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. PERSONNEL – 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).

D1.1.2
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 program ensures training 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.

D1.1.5
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. PERSONNEL - 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. This training is reinforced and updated at appropriate intervals.

D 2.1.2
Personnel responsible for maintenance and calibration of equipment impacting on food safety have been appropriately trained (including evaluation) to perform these functions, to identify problems that could affect product safety, and to take the appropriate corrective action. This 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). This 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.

E. SANITATION & PEST CONTROL

OBJECTIVE:

To establish effective cleaning and sanitizing procedures for the facility, equipment and utensils. The Pest Control Program works together with the Premises Program to ensure the complete control of pests.

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).

E. SANITATION AND PEST CONTROL - 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 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.
- Methodology for routine testing of chemical concentrations.

E 1.1.2
Prior to 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).

E1.1.4
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. SANITATION AND PEST CONTROL - 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 documented inspection program for all pest control devices.
- Procedures for dealing with pest activity, including corrective actions.
- 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) RECALL - 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 coordinator(s)).
- 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.
- 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, the Regional Health Authorities, Alberta Health and Wellness, or Alberta Agriculture, Food & Rural Development) shall be maintained. The appropriate regulatory contact(s) will be 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).
- Reason for the recall.

(F) RECALL - F 1. RECALL SYSTEM

F 1.1 Recall Program cont.

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. RECALL - F 2. PRODUCT CODING SYSTEM

F 2.1 Product Code Identification and Distribution Details

F 2.1.1
All food products shall 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.
- Where used, case codes are legible and represent the container code within.

F2.1.2
The operator shall have the ability to trace raw materials from receipt through to finished product.

F 2.1.3
For each lot of product, the following information shall be in place:

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

F. RECALL - F 3. CUSTOMER COMPLAINT SYSTEM

F 3.1 Customer Complaint Records

F 3.1.1
The operator shall have in place a program 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.
- For consumer complaints, retailer information including store where purchased and date of purchase.

F. RECALL - F 3. CUSTOMER COMPLAINT SYSTEM

F 3.2 Customer Complaint Investigation

F 3.2.1
All complaints shall be investigated to 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.
- 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 to food safety.

The current list of the most common allergens includes: peanuts, tree nuts, eggs or egg products, milk or dairy products, crustaceans, fin fish, soy, wheat, sesame seeds and sulphites. 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. ALLERGEN CONTROL - 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. Ensure 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.
- A requirement that ingredient suppliers have an 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 shall be 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 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. ALLERGEN CONTROL - 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 suppliers of food ingredients, packaging materials, and equipment are meeting food safety requirements.

RATIONALE:

Ensuring that vendors are supplying 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 SUPPLIER QUALITY ASSURANCE – H 1. PROGRAM

H 1.1 Supplier Program Requirements

H1.1.1
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 are utilizing a food safety system (e.g., audit of suppliers, questionnaires).
- Letters of continuing guarantee from each individual supplier facility.

H1.1.2
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.
- Supplier code number.

H. SUPPLIER QUALITY ASSURANCE – H 2. PRODUCT

H 2.1 Product Specifications

H 2.1.1
For each incoming material, specifications shall be 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 evaluate incoming material records to ensure adherence to product specifications. Verify, through evaluation, that incoming materials meet specifications.

Product Protection

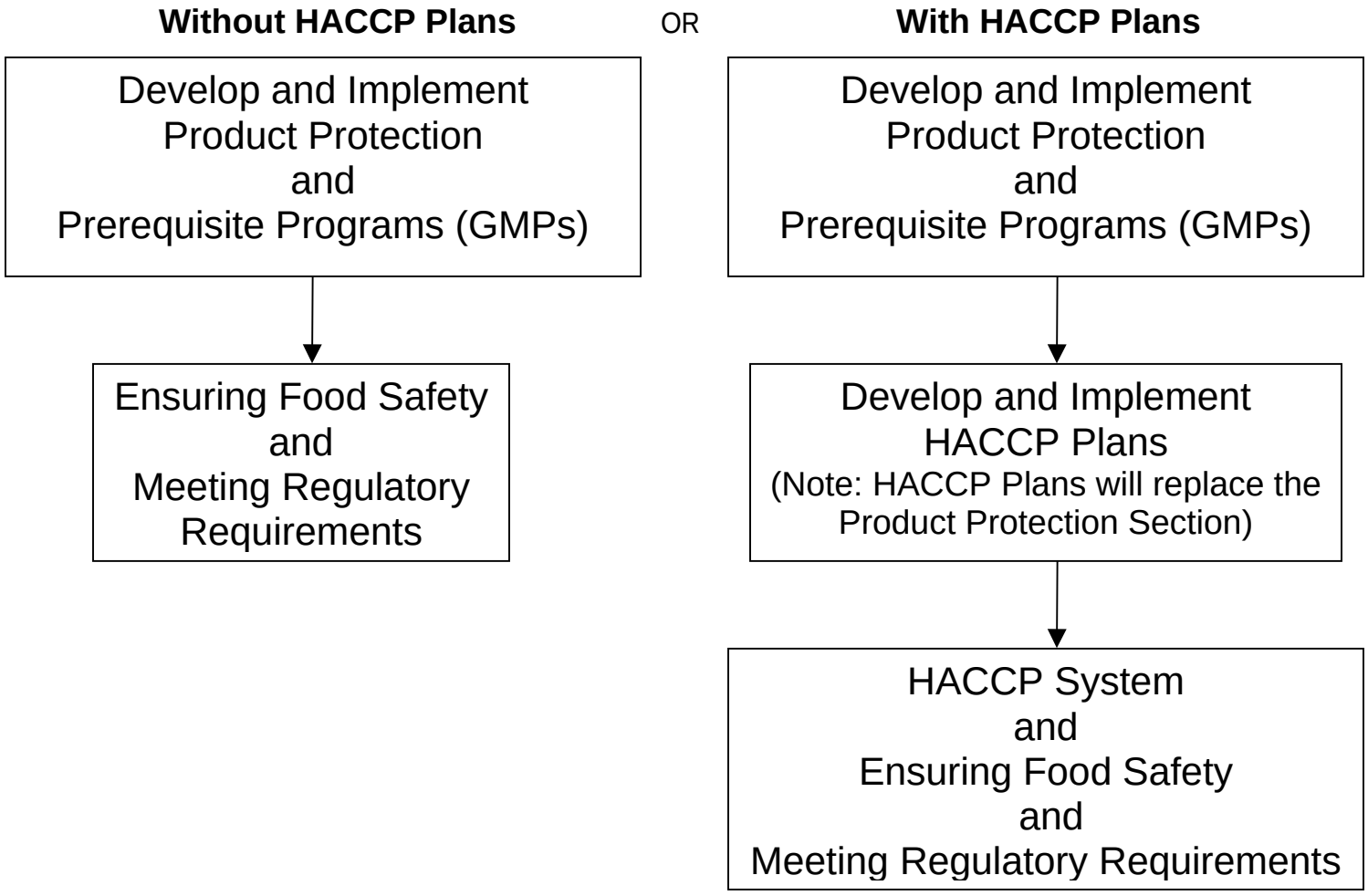
Scope of the Product Protection Section

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 are monitoring processes that are critical to food safety, however they are often not documenting these activities in a formal program.

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 period, 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 manufacture 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.
- 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 Steps	Critical Factors
Cooking	Time/temperature
Cooling	Time/temperature
Formulation	PH, concentration (ppm, nitrite levels)
Dehydration	Water activity
Metal detection	Sensitivity (test, sphere)
Scalping	Magnets
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 shall keep 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.
- Deviations and corrective actions are documented when critical limits are not met.

Verification of Critical Factors

A third party to the monitor will verify that monitoring activities are being conducted as written, and records are being kept.

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

When monitoring critical factors you must consider employee practices, equipment used, maintenance activities, sanitation practices and general facility maintenance. Procedures must be in place to ensure these activities do not lead to product contamination.

Part II:
HACCP Plans

PRODUCT DESCRIPTION **FORM #1** **PROCESS / PRODUCT TYPE NAME:**	
1. PRODUCT NAME(S)	
2. IMPORTANT PRODUCT CHARACTERISTICS (e.g., A_w, 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	

LIST OF PRODUCT INGREDIENTS AND INCOMING MATERIALS FORM #2 **PRODUCT NAME:**		
List incoming raw materials and ingredients by product	**Other**	**Other**
Other	**Other**	**Other**
Other	**List all incoming processing aids**	**List all incoming packaging materials**

Identify Hazards as (B) Biological, (C) Chemical, (P) Physical, and if applicable to your operation, as (A) Allergens.

PROCESS FLOW DIAGRAM
FORM #3

PRODUCT NAME(S):

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).

PLANT SCHEMATIC
FORM #4

PRODUCT NAME(S):

↑ **N**

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).

HAZARD IDENTIFICATION AND CCP DETERMINATION
FORM #5 – Incoming Materials

Incoming Materials **List all incoming materials as identified in Form #2.**	**List all Biological (B), Chemical (C) , Physical (P) and Allergenic (A) hazards associated with the incoming materials.** **Rate the Likelihood of Hazard Occurrence = L** (H=High, M=Medium, L=Low, R=Remote) **Rate the Severity of Hazard if it Occurs = S** (H=High, M=Medium, L=Low)	**B**	**C**	**P**	**A**	**L**	**S**	**Determine if each hazard is FULLY controlled by Prerequisite Program(s).** *** If "YES" indicate Program details and proceed to next identified hazard.** *** If "NO" proceed to question 1 (Q1).**	**HACCP Team Notes** **(Justify Your Decision)**	**Q1. Could a control measure(s) be used by the operator at any process step to eliminate the hazard or reduce it to an acceptable level?** *** If "NO" then it is not a CCP. Indicate how this hazard will be controlled before or after the process and proceed to the next identified hazard.** *** If "YES" describe the control measure and go to question 2 (Q2).**	**Q2. Is it likely that contamination with the identified hazard could occur in excess of the acceptable level or could increase to an unacceptable level?** ***If "NO" then it is not a CCP. Explain and proceed to the next identified hazard.** ***If yes, go to question 3 (Q3).**	**Q3. Is this process step specifically designed to eliminate the identified hazard or reduce its likely occurrence to an acceptable level?** **Note: This question is not applicable for incoming materials. Indicate "NA" and proceed to question 4 (Q4).**	**Q4. Will a subsequent process step eliminate the identified hazard or reduce its likely occurrence to an acceptable level?** ***If "NO" then it is a CCP. Go to the last column.** ***If "YES" then it is not a CCP. Identify subsequent step and proceed to the next identified hazard.**	**CCP number** ***Proceed to next identified hazard.**

HAZARD IDENTIFICATION AND CCP DETERMINATION
FORM #5 – Process Steps

Process Steps **List all process steps as identified in Form #3.**	**List all Biological (B), Chemical (C) , Physical (P) and Allergenic (A) hazards associated with the process steps.** **Rate the Likelihood of Hazard Occurrence = L** (H=High, M=Medium, L=Low, R=Remote) **Rate the Severity of Hazard if it Occurs = S** (H=High, M=Medium, L=Low)	**B**	**C**	**P**	**A**	**L**	**S**	**Determine if each hazard is FULLY controlled by Prerequisite Program(s).** *** If "YES" indicate Program details and proceed to next identified hazard.** *** If "NO" proceed to question 1 (Q1).**	**HACCP Team Notes** **(Justify Your Decision)**	**Q1. Could a control measure(s) be used by the operator at any process step to eliminate the hazard or reduce it to an acceptable level?** *** If "NO" then it is not a CCP. Indicate how this hazard will be controlled before or after the process and proceed to the next identified hazard.** *** If "YES" describe the control measure and go to question 2 (Q2).**	**Q2. Is it likely that contamination with the identified hazard could occur in excess of the acceptable level or could increase to an unacceptable level?** ***If "NO" then it is not a CCP. Explain and proceed to the next identified hazard.** ***If "YES" go to question 3 (Q3).**	**Q3. Is this process step specifically designed to eliminate the identified hazard or reduce its likely occurrence to an acceptable level?** ***If "NO" go to question 4 (Q4).** ***If "YES" this step is a CCP. Go to last column.**	**Q4. Will a subsequent process step eliminate the identified hazard or reduce its likely occurrence to an acceptable level?** ***If "NO" this step is a CCP. Go to the last column.** ***If "YES" then it is not a CCP. Identify subsequent step and proceed to the next identified hazard.**	**CCP number** ***Proceed to next identified hazard.**

HAZARDS NOT CONTROLLED BY OPERATOR
FORM #6

PRODUCT NAME(S):

LIST HERE ANY BIOLOGICAL, CHEMICAL, PHYSICAL, OR ALLERGEN HAZARDS THAT ARE NOT CONTROLLED BY THE 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 #7
PRODUCT NAME:

Process Steps	CCP / Hazard Number	Hazard Description	Critical Limits	Monitoring Procedures				Deviation Procedures	Verification Procedures	HACCP Records
				Who	What	How	Frequency			

PART III:
Requirements for Certification and Recognition Under the Alberta HACCP Advantage Program

The following pages will provide you with 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! Program Recognition Manual.

There are several reasons processors may wish to use the Alberta HACCP Advantage 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.
- Compliance with regulatory or customer requirements.

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

If you already operate under a HACCP System that you would like to have certified and recognized by the Alberta HACCP Advantage Program, you will need to ensure 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 HACCP System Recognition under the AHA! Program, involving three major parties:

Step	Activity	Party Involved
1	HACCP System Implementation	The Operator
2	Successful HACCP System audit and Certification of the HACCP System	Independent, external, Certification Body
3	Government of Alberta Recognition	Alberta Agriculture, Food and Rural Development (AAFRD)

Each of the parties involved has clear **roles and responsibilities**:

Role of Industry (The Operator)

- Meet all applicable provincial and federal regulatory requirements as they relate to the commodity produced.
- Maintain licensing with the appropriate regulatory agency (if applicable).
- Provide management commitment to HACCP through a letter of commitment.
- Develop, implement, and maintain the HACCP System, including maintaining appropriate documentation control (i.e., procedures and records).
- Ensure that appropriate staff are trained in their areas of responsibility.

Note: All the provisions, powers and authorities under existing acts and regulations will continue to apply. Where the provincial government has no acts and regulations to enforce, the appropriate federal acts and regulations that apply will be used and enforced as needed.

Role of the Certification Body

- Audit the HACCP 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 AAFRD.
- Conduct annual audits for maintaining certification.

Role of AAFRD

- Develop, implement and maintain the AHA! Standard, AHA! recognition protocol and resource materials for processors to utilize in the implementation of HACCP.
- Designate and oversee the third party certification body.
- Develop, implement and maintain a management system, which outlines how all 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. These criteria must be maintained in order to be eligible for on-going certification audits.

1. Demonstration of Management Commitment

- A letter of endorsement signed and dated by senior management will be required to confirm management's commitment and support for the implementation and maintenance of the HACCP System. As a minimum this letter should include:
    - Indication of management's full support and commitment to the implementation and maintenance of the HACCP System, including a commitment to providing adequate training and resources.
    - A statement confirming the accuracy of the information outlined in the documentation package.
    - Designation of a person/position to be responsible for the HACCP 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,
- The facility must have procedures in place for identifying and keeping current with applicable legal requirements.

3. HACCP 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 the following:
    - Monitoring procedures which include:
        - Employees' name(s) or position(s) responsible for monitoring.
        - What and/or how monitoring is conducted.
        - Frequency of monitoring procedures.

        - Records for documenting monitoring procedures.
    - Deviation procedures (or corrective actions) which include:
        - Employees' name(s) or position(s) responsible for deviation procedures.
        - What and/or how the deviation procedures are conducted.
        - Records for documenting the deviation procedures.
        - Note that deviation procedures are conducted when a deviation occurs.
    - Verification procedures which include:
        - Employees' name(s) or position(s) responsible for verification procedures.
        - What and/or how verification is conducted.
        - Frequency of verification procedures.
        - 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. 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 reference HACCP 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.
- 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(s) in question.
- For those processes which are critical control points, the following must be indicated:
    - What the critical limits are.
    - What the monitoring procedures are.
    - What the frequency of monitoring is.
    - Who conducts the monitoring.
    - What the deviation procedures are.
    - What the verification procedures are.
    - What records will be kept to demonstrate adherence to the program.
    - Where applicable, references to scientific literature or background materials used to support decisions made in the HACCP Plan(s),
    - Validation of CCP's 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.

3c. 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.
- A list of all applicable records.

4. Maintenance of the HACCP System

The operator must have written procedures detailing how the entire HACCP System is maintained and updated on an annual basis. The procedures must describe how each component of the HACCP 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 HACCP System.
- Procedures to be followed when a deviation is found.
- Records to show the reviews are performed as written.
- Where required, pages that are replaced must be signed and dated.
- A system to ensure that all changes made to the HACCP System are documented in a log book. The log book must indicate:
    - A description of the changes.
    - Where the changes occur in the HACCP System.
    - The date on which changes were implemented.
    - Who performed the changes.
    - Verification that the changes were made and are effective.

The annual review of the HACCP System must:

- Review all sub-elements within the Prerequisite Programs to ensure that procedures continue to reflect current establishment practices, processes, equipment, and regulatory requirements, and continue to be efficient and effective.
- Review the HACCP Plan(s) to ensure the hazards are still relevant and under control, including:
    - An evaluation of critical limits to ensure they continue to effectively control the hazard and meet regulatory requirements.

- A review of monitoring, deviation and verification procedures for each CCP to ensure they continue to be efficient and effective.
- A review of validation studies of all CCP's to ensure that the CCP continues to control the identified hazard.

The maintenance of the HACCP System must also include procedures for updating the HACCP System due to:

- Changes in regulatory requirements.
- Changes to product formulations.
- Introduction of new technologies that may impact on product safety.

5. Documentation Control

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

- All pages found in the HACCP 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 HACCP Plan.
- Changes to HACCP Plans or Prerequisite Programs have updated pages dated and signed and are distributed to all users.
- Only the most up-to-date version of a document is in use and all obsolete documents are promptly removed.

Alberta HACCP Advantage Standard
Glossary of Terms

Allergens
Substances that cause an allergic response in some individuals, and may result in a runny nose, water and/or itchy eyes, a rash, wheezing or (occasionally) death.

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

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 food borne 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 micro-organism or its toxic products and is transmitted directly or indirectly from an infected person or 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 Points
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 food borne 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 Surfaces
The surface of equipment or utensils with which food normally comes into contact.

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 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 favorable 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).

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

REFERENCES

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