

FeedAssure®

Version 4.0 (2022)



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FeedAssure® The Gold Standard in Feed Safety

Feed Safety: A Canadian Feed Industry Responsibility

The role of [feed safety](#) as a foundation to produce safe food has been recognized worldwide. The feed industry is a key component of Canada's agri-food economy and an active partner in the nation's food safety system. Feed plays a critical role in keeping Canada's food supply as well as its plant and animal resource base safe. Feed safety is not only a priority for the Canadian feed industry; it is a responsibility.

The [feed chain](#) includes ingredient manufacturers and suppliers, commercial and non-commercial feed manufacturers and suppliers, feed and ingredient importers, suppliers of other feed inputs (e.g. packaging and manufacturing equipment), transporters and distributors, and producers. Every step in the feed chain can act as a route of entry for animal, human or environmental [hazards](#). Thus, all parties share in the responsibility of identifying hazards and putting in place effective [control measures](#).

To mitigate feed safety risks, hazards within the feed chain [must](#) be identified and assessed. Multifaceted hazard assessments are often necessary to consider both the safety to food-producing animals as the primary consumers of feed and safety to humans. These assessments are a foundation of any Hazardous Analysis Critical Control Point (HACCP) system and form the basis of FeedAssure®. The intent of a HACCP system is to address potential safety risks and focus control at [critical control points](#) (CCPs). HACCP is a well-recognized system for controlling [feed safety hazards](#).

FeedAssure® and HACCP

FeedAssure® was the first feed industry HACCP program developed in North America and one of the first in the world. Since its inception, FeedAssure® has provided assurance that facilities certified to the program have systems in place to manage the risks associated with animal and human food safety. This is done by utilizing the program's customized HACCP system which brings high safety standards to the feed production chain. In 2010, the [Canadian Food Inspection Agency](#) (CFIA) formally recognized FeedAssure® as meeting the standards of the CFIA Food Safety Enhancement Program (FSEP). FSEP specifies the requirements for an effective HACCP system to ensure food is prepared under sanitary conditions and is safe to eat.

FeedAssure® provides the framework for a comprehensive and effective feed safety [management system](#) by promoting best practices and sharing of knowledge and technical expertise. Feed businesses are able to demonstrate the industry's dedication to producing safe feed through their commitment to FeedAssure®.

HACCP and Preventive Control Plans

HACCP is a well-recognized system for controlling feed safety hazards. The intent of a HACCP system is to address potential safety risks and focus control at critical control points (CCPs). A [preventive control plan](#) (PCP) is a written [document](#) that demonstrates how risks to feed are identified and controlled. The controls are based on internationally recognized HACCP principles and include a combination of measures that prevent and control risks to feed rather than focusing on specific points in the manufacturing process.

The *Safe Food for Canadians Regulations* (SFCR) and the evolution of the Canadian feed regulatory framework to an outcome-based, systems-based approach introduced the requirements for [preventive controls](#) and processes. With systems-based rather than product-focused regulations, the development of preventive control plans (PCPs) that include procedures, training, documentation and internal risk analyses to identify and mitigate risks to animal health, human health and the environment are key.

Scope

The scope of FeedAssure® includes the procurement, handling, storage, manufacturing, processing and distribution of [feed](#) and [feed ingredients](#) for consumption by food producing animals. Although not the focus, the standard can also be adapted to foods for non-food producing animals (pets, other fur-bearing animals, etc.).

Review and Revision of the Standard

The FeedAssure® program is subject to regular review. This enables [continual improvement](#) of the program through consideration of new scientific advances, changes in regulatory requirements, and updated best practices relevant to feed and feed safety.

ANAC began work on this revision in 2019 with the goals of aligning FeedAssure® to new internationally recognized feed standards and evolving regulatory and industry requirements.

The updates incorporated in this version have resulted in an enhanced comprehensive [management system](#) with clearly defined requirements for:

- an effective feed safety management system and [feed safety plan](#) (i.e. PCP)
- [biosecurity](#), [feed defense](#), [feed fraud](#) and crisis management

The new manual also:

- reorganizes information so it is easier to find and compare with other feed safety standards
- can be cross-referenced to all elements in the audit checklist
- has strengthened [prerequisite programs](#) (PRPs) and interpretation guidance
- is aligned with Canadian regulatory requirements related to feed safety

About Animal Nutrition Association of Canada (ANAC)

As the scheme owner, ANAC manages and oversees the FeedAssure® program.

The Animal Nutrition Association of Canada (ANAC) is the national trade association of the livestock feed industry. Members include feed and ingredient manufacturers and distributors, as well as suppliers of a wide range of goods and services to the feed industry. Taken together, ANAC's membership represents ninety percent (90%) of commercial feed manufactured in Canada.

FeedAssure® – Section I: Management System

1. MANAGEMENT COMMITMENT AND RESPONSIBILITY

1.1 Management Policy

- 1.1.1 Senior management shall prepare a policy statement that includes a commitment to:
 - i. maximize the safety of feed
 - ii. meet applicable regulatory requirements
 - iii. achieve continual improvement
- 1.1.2 The policy statement shall be:
 - i. written
 - ii. signed by senior management annually or upon a change in management
 - iii. communicated and implemented at all levels within the organization and maintained
 - iv. reviewed at least annually to ensure its continuing suitability, adequacy and effectiveness; records of review must be maintained. Any changes to the policy shall be communicated and implemented at all levels within the organization.
 - v. supported by measurable objectives

1.2 Management Responsibility and Authority

- 1.2.1 Senior management shall identify those who have responsibility and authority for feed safety.
- 1.2.2 The responsibility and authority for feed safety shall be documented and communicated within the organization.
- 1.2.3 Senior management shall designate a feed safety team lead responsible for the development, implementation, review and maintenance of the feed safety management system. This feed safety team lead shall:
 - i. report directly to senior management or designate
 - ii. have the necessary competence relevant to the scope of the operations
 - iii. report on the performance of the feed safety management system to senior management
- 1.2.4 Senior management shall ensure adequate resources are available to achieve the desired feed safety objectives and support the development, implementation, maintenance and ongoing improvement of the feed safety management system.
- 1.2.5 Senior management shall facilitate the implementation and communication of the commitment stated in the policy referenced in 1.1 and all relevant feed safety management system documentation.

1.3 Feed Safety Management System

- 1.3.1 A feed safety management system shall be documented and maintained in electronic and/or hard copy form and include:
 - i. the feed safety policy statement and organizational chart

- ii. the scope of activities that could have an impact on the safety of the feed produced/processed/handled under the responsibility of the organization that are covered by the feed safety management system
- iii. a list of the products covered under the scope of the feed safety management system
- iv. feed safety plans, [prerequisite programs](#) (PRPs) and procedures
- v. other documentation necessary to support the development, implementation, maintenance and control of the feed safety management system

1.4 Meeting Feed Legislation and Regulatory Requirements

- 1.4.1 The organization shall document and implement methods and responsibilities to ensure the organization remains updated with and compliant to all relevant legislative requirements.
- 1.4.2 The organization shall ensure that, at the time of delivery to its customer, all feed supplied, complies with any relevant legislation in the country of use and/or sale.

1.5 Monitoring, Measurement, Analysis and Evaluation

- 1.5.1 The organization shall have documented procedures established for [monitoring](#) the implementation of the feed safety management system.
- 1.5.2 A documented procedure shall be established which defines how the results of monitoring are analyzed, evaluated and communicated to senior management.

1.6 Internal Audit

- 1.6.1 The organization shall have written and implemented procedures for conducting an [internal audit](#) of the entire feed safety management system. The internal audit shall assess the conformity of the organization's practices to the FeedAssure® program requirements, any other site-specific procedures and protocols and as applicable, customer-specific requirements.
- 1.6.2 The internal audit must be completed at least annually and non-conformances identified must be documented.
- 1.6.3 Personnel conducting internal audits shall be trained in internal audit procedures.
- 1.6.4 Management responsible for the area being audited shall ensure and verify that any necessary corrections and [corrective actions](#) are taken without due delay to eliminate detected nonconformities and their causes.
- 1.6.5 Internal audit and associated corrections and corrective action records must be maintained.
- 1.6.6 All non-conformances identified during the internal audit must be corrected as per the following schedule:
 - 1.6.6.1 Critical non-conformances
 - The corrective action plan must be completed within 14 days of the audit and implemented and reviewed for effectiveness within 30 days of the audit.
 - The corrective action must be closed out within 30 days of the audit.
 - 1.6.6.2 Major non-conformance

- The corrective action plan must be completed within 14 days of the audit and implemented and reviewed for effectiveness within 30 days of the audit.
 - The corrective action must be closed out within 60 days of the audit.
- 1.6.6.3 Minor non-conformance
- The corrective action plan must be completed within 14 days of the audit and implemented and reviewed for effectiveness within 90 days of the audit.

1.7 Management Review

- 1.7.1 Senior management shall review the feed safety management system at planned intervals (at least annually), to ensure it continues to be suitable, adequate and effective.
- 1.7.2 The review shall be conducted by the senior management of the organization, with the designated feed safety lead.
- 1.7.3 Management reviews and program updates shall be documented and maintained.

1.8 Document Control and Records

- 1.8.1 The procedures and responsibility for creating, maintaining and verifying documents and ensuring staff have access to current documents shall be recorded and implemented.
- 1.8.2 A register of all current system documents and amendments shall be maintained including procedures and responsibility for document control.
- 1.8.3 Documents shall be safely stored and readily accessible.
- 1.8.4 All records shall be legible, complete, signed (or suitably authorized) by those undertaking monitoring activities, and have no evidence of tampering.
- 1.8.5 Records shall be readily accessible, retrievable, securely stored to prevent unauthorized access, damage or deterioration and shall be retained in accordance with regulations or policies.

2. FEED SAFETY PLAN

2.1 General Requirements of a Feed Safety Plan

- 2.1.1 A feed safety plan shall be documented, effectively implemented and maintained. It shall outline how the site controls and maximizes feed safety.
- 2.1.2 The feed safety plan shall be developed and maintained by the designated feed safety lead and the site personnel with technical, production and engineering knowledge of the relevant products and associated processes.
- 2.1.3 A full review of the documented and implemented feed safety plan shall be conducted at least annually, or when changes to the process, equipment, inputs or other changes that could affect product safety occur.

2.2 Preliminary Steps to Hazard Analysis

- 2.2.1 Product descriptions shall be documented for all products included in the scope of the feed safety plans. This shall reference the finished product specifications plus any additional information relevant to product safety (e.g. pH, water activity and/or composition).
- 2.2.2 The intended use of each product shall be documented.
- 2.2.3 One or more flow diagrams and plant schematics covering the scope of the feed safety plan shall be documented. Product/process/personnel flow diagrams and plant schematics are adequately described and verified to match actual processes.

2.3 Hazard Identification

- 2.3.1 The feed safety lead and team shall identify and document all hazards, within the scope of the facility's activities, which are known or reasonably foreseeable to occur in feeds and feed ingredients.

2.4 Hazard Assessment

- 2.4.1 The feed safety lead and team shall conduct an assessment for every identified hazard to determine where prevention, elimination or reduction to an acceptable level is necessary to reduce risk. The methodology for determining hazard significance shall be documented and used consistently to assess all potential hazards.

2.5 Control Measures and Control Points

- 2.5.1 The feed safety lead and team shall determine and document the control measures that must be applied to prevent, eliminate or reduce all hazards to an acceptable level.

2.6 Determination of Critical Limits

- 2.6.1 For each identified critical control point (CCP), the feed safety lead and team shall identify and document the measurable critical limits that separate safe from unsafe product.

2.7 Establishing and Monitoring Critical Control Points

- 2.7.1 The feed safety lead and team shall develop and document procedures to monitor CCPs to ensure they remain within the established critical limits.
- 2.7.2 Monitoring procedures shall identify the personnel responsible, sampling methodology and frequency of monitoring.

2.8 Validation of Control Measures

- 2.8.1 The feed safety lead and team shall validate that the selected control measures can achieve the intended control of the identified hazards.

2.9 Corrective Actions, Including Actions to Prevent Recurrence

- 2.9.1 The feed safety lead and team shall develop and document corrective action procedures, which includes preventive actions, when monitoring indicates critical limits and other critical deviations have not been met. Procedures shall include actions to:
 - i. contain the extent of the deviation
 - ii. immediately bring the process back under control
 - iii. identify and determine the action that must be taken for the affected product
 - iv. determine the cause and modify the control, if necessary, to prevent recurrence of the incident
 - v. verify the effectiveness of actions taken

2.10 Verification of Control Measures

- 2.10.1 The feed safety lead and team shall develop and document procedures for verification of control measures to confirm that control measures are adequately and consistently implemented and are effectively eliminating or reducing hazards to an acceptable level necessary to ensure feed safety.

3. BIOSECURITY

3.1 General

- 3.1.1 The organization shall have a biosecurity plan that is documented and implemented and is reviewed annually at a minimum.
- 3.1.2 The biosecurity plan is communicated to all facility personnel, contracted resources, visitors and transport drivers.

3.2 Visitors

- 3.2.1 Visitor access to the premises is controlled and recorded to prevent contamination of ingredients, equipment or products.
- 3.2.2 All visitors shall be provided with a written copy of the facility's requirements for visitor hygiene procedures before entering any feed processing or handling area.
- 3.2.3 All visitors shall wear suitable clothing and footwear when entering any feed processing or handling area.
- 3.2.4 Visitors shall enter and exit feed handling areas through the proper visitor entrance points.
- 3.2.5 All visitors shall be escorted at all times in feed processing, handling and storage areas.
- 3.2.6 All visitors shall follow all applicable personnel hygiene practices while at the facility.

3.3 Vehicles

- 3.3.1 Vehicle access to the premises is controlled.
- 3.3.2 Vehicles are inspected for cleanliness before unloading or load out.

4. FEED DEFENSE AND FEED FRAUD

- 4.1.1 A feed defense and feed fraud plan shall be documented, implemented, maintained and reviewed annually at a minimum.
- 4.1.2 Senior management shall designate a lead who has received relevant training and is responsible for feed defense and feed fraud.
- 4.1.3 The feed defense and feed fraud plan shall include a vulnerability assessment.
- 4.1.4 The feed defense plan shall include:
 - i. methods implemented to protect sensitive processing points from intentional adulteration
 - ii. measures taken to ensure the security of storage for finished products, materials, packaging, equipment and hazardous chemicals
 - iii. measures implemented to ensure materials (bulk or bagged) as well as finished product are held under secure storage and moved in secure transportation conditions
- 4.1.5 The feed fraud plan shall include:
 - i. methods by which the identified feed fraud vulnerabilities shall be controlled
 - ii. methods by which feed fraud will be detected, as applicable
- 4.1.6 The feed defense and feed fraud plan are communicated to all relevant management and facility personnel.

5. CRISIS MANAGEMENT

- 5.1.1 Senior management shall ensure procedures are documented and in place to respond to potential emergency situations or incidents that can have an impact on feed safety which are relevant to the role of the organization in the feed chain.
- 5.1.2 The emergency procedures shall be communicated, implemented and maintained at all levels within the organization.
- 5.1.3 The emergency procedures are tested annually at a minimum and records of tests are maintained.
- 5.1.4 Senior management shall review the implementation of procedures after the occurrence of any incident, emergency and/or testing and, where necessary, update the documented procedures. Records of these reviews must be maintained.

FeedAssure® – Section II: Prerequisite Programs

6. PREMISES

6.1 Buildings and Grounds

- 6.1.1 The establishment shall be designed, constructed, located, operated and maintained to prevent unsafe contamination.
- 6.1.2 If a facility is engaged in other business activities in addition to feed manufacturing, the facility shall have appropriate controls in place for those activities to prevent unsafe contamination.
- 6.1.3 The location of the premises shall be such that adjacent and adjoining buildings, operations and land use do not interfere with safe and hygienic operations.

6.2 Building Exterior

- 6.2.1 The grounds and area surrounding the premises shall be maintained and kept free of refuse or accumulated debris that could present a significant risk of pest harbourage.
- 6.2.2 The grounds, loading and unloading areas shall be well drained. Grading as well as dust proofing of unpaved roads, parking lots and other exterior areas shall not present a significant risk of contamination for the feed.
- 6.2.3 The exterior of the building shall be maintained to prevent entry of pests and contaminants.
- 6.2.4 All exterior windows, ventilation openings, doors, external openings for the transfer of materials within the establishment and other openings to the outdoors shall be managed to prevent entry of foreign matter, precipitation and pests.
- 6.2.5 The facility shall have an external premises inspection procedure documented. The premises shall be inspected regularly and according to a prescribed schedule.

6.3 Building Interior

- 6.3.1 Building design, materials and conditions shall not pose a significant feed safety risk.
- 6.3.2 Ceilings, walls and floors shall be cleanable, in good repair and made of materials that do not pose a significant risk of contamination to the process, inputs and products.
- 6.3.3 Product shall be processed and handled in areas fitted with a ceiling or other acceptable structure which are constructed and maintained to prevent the contamination of products.
- 6.3.4 If applicable, stairs, catwalks and platforms in feed and feed ingredient processing and handling areas shall be designed, constructed and maintained to prevent any product contamination risk. This includes ensuring that there are no open grates directly above exposed feed, packaging or product contact surfaces.
- 6.3.5 Floors in feed preparation areas are constructed and maintained to prevent pooling of liquids (e.g. water, oils, liquid fats).
- 6.3.6 Overhead fixtures must be designed, constructed and maintained to prevent the contamination of products.
- 6.3.7 Glass, brittle plastic materials and equipment are properly protected where breakage in feed preparation areas may pose a risk of contamination.

- 6.3.8 The facility shall have an internal premises inspection procedure documented. The premises shall be inspected regularly according to a prescribed schedule.

6.4 Ventilation and Air Quality

- 6.4.1 Ventilation systems and devices shall be designed, constructed and maintained to prevent dirt or condensation from collecting on walls and ceiling that would pose a risk to products located in enclosed manufacturing and feed handling areas.

6.5 Layout and Space

- 6.5.1 Internal workspace, equipment layout, processes and the flow of employees, product and equipment shall be designed to provide adequate space to prevent unsafe cross-contamination.
- 6.5.2 If applicable, testing areas and laboratories shall be designed, located and operated to prevent contamination of materials and production areas.

6.6 Lighting

- 6.6.1 The facility shall have sufficient lighting to enable staff to effectively and safely conduct all operations, inspections (materials, product, equipment) and maintenance.

6.7 Water/Steam Supply and Plumbing

- 6.7.1 Water, ice and steam that comes in contact with feed and feed contact surfaces shall meet safety and potability requirements according to local, national or internationally recognized potable water microbiological and quality standards.
- 6.7.1.1 Testing of water shall be conducted at minimum annually, to verify water quality.
- 6.7.1.2 If water is from municipal sources, municipal test results are acceptable to demonstrate potability.
- 6.7.2 There must be no cross-contamination between potable and non-potable water lines and non-potable water piping and outlets must be clearly identified.
- 6.7.3 Water treatment equipment, where present, shall be monitored regularly to ensure water receives effective treatment and does not pose a product contamination risk.

6.8 Compressed Air and Other Gases

- 6.8.1 Compressed air and other gases that come into direct contact with feed or feed contact surfaces, including those used for transferring, blowing or drying, shall not present a risk of feed contamination.

6.9 Waste Management

- 6.9.1 The facility shall document and implement a waste management program that indicates the individual responsible, and methods used to collect, identify, handle and store waste prior to its removal from the premises.
- 6.9.2 Waste generated by the operation shall be disposed of in compliance with environmental regulations. Waste materials not suitable to be used as feed shall be identified, isolated and disposed of in an appropriate way that prevents unauthorized use.
- 6.9.3 Drainage and sewage systems shall be adequate for the volume and type of effluent being produced during normal processing and cleaning operations, and to prevent backflow.
- 6.9.4 Waste containers and tanks shall be clearly identified for their intended use, have sufficient capacity, maintained to prevent leakage, covered where appropriate and isolated from main flow areas to avoid contamination risk.
- 6.9.5 The frequency of waste removal shall be sufficient to prevent a build-up in feed handling or processing areas.
- 6.9.6 Designated waste accumulation areas shall be maintained in a clean and tidy condition that prevents attraction and harboring of pests until such time as external waste collection is undertaken.

7. RECEIVING, STORAGE AND TRANSPORTATION

7.1 Storage Containers, Equipment and Conveyances

- 7.1.1 Storage containers, equipment and conveyances used for receiving, storage, conveying and distribution that come in contact with feed components or finished feed shall be clean, made of materials that will not contaminate products, and in good repair.
- 7.1.2 Storage containers, equipment and conveyances shall not be used for activities that could negatively impact the feed safety of products that come in contact with the container, equipment or conveyance.
- 7.1.3 When not in use, storage containers, equipment and conveyances shall be stored and maintained in a manner to prevent harboring pests or becoming contaminated.
- 7.1.4 Cleaning protocols are documented and implemented for storage containers, equipment and conveyances. Where contracted transport services are used, the contractor must confirm that they have written procedures in place to control contamination risks or to certify that trucks are free from contamination.

7.2 Areas for Receiving, Storage and Transportation

- 7.2.1 The receiving area for incoming materials and ingredients shall be designed and maintained to enable all operations to be carried out and minimize the potential for damage and contamination.
- 7.2.2 Storage areas shall be designed and have sufficient space to accommodate all stored materials. Storage areas shall be maintained to provide protection from dust, condensation, waste, pests and other sources of contamination.
- 7.2.3 Storage areas shall have sufficient space between stored materials and walls to allow cleaning, inspection and pest control activities to be carried out.
- 7.2.4 Bulk storage areas shall be designated and allow for separation and segregation of materials where required to avoid cross-contamination.
- 7.2.5 Medications, prohibited material, rework, expired ingredients and detained/held/returned/rejected products shall have designated storage that allows for adequate identification and segregation to prevent cross-contamination and unintended use.
- 7.2.6 When bulk storage bins are not dedicated for prohibited material or products containing prohibited material (e.g. due to multi-species production), a validated cleanout procedure must be implemented.
- 7.2.7 Hazardous chemicals and toxic substances shall not be stored where they may present a risk to staff, products, packaging, processing utensils, product handling equipment or in areas in which products are handled, stored or transported.
- 7.2.8 The product staging and loading areas shall be designed to provide sufficient working space and maintained to minimize the potential for damage and unsafe contamination of finished product.

7.3 Processes for Receiving, Storage, Shipping and Transportation

7.3.1 The facility shall document and implement procedures for receiving, handling, storage, load assembly, loading and transportation to prevent damage, unsafe contamination and maintain product integrity.

7.3.2 Receiving Processes

7.3.2.1 Receiving procedures shall indicate requirements for:

- i. inspection of required documentation to verify identity and suitability prior to accepting raw material shipments
- ii. visual check of arriving carriers
- iii. product identification and inspection of all incoming materials and ingredients before accepting into facility
- iv. identification and segregation for medications, prohibited material, returned and rework material
- v. flushing of receiving lines or other validated procedure immediately after prohibited material, bulk medicated materials, or other high-risk materials are received, as applicable
- vi. receiving records
- vii. obtaining samples and for conducting testing (e.g. mycotoxins), as applicable
- viii. handling nonconforming materials, such as those that do not meet relevant specifications or are from an unapproved supplier

7.4 Storage and Stock Rotation Processes

7.4.1 Procedures for stock rotation shall be documented and implemented.

7.4.2 All ingredients, packaging and finished feeds shall be stored in a manner that allows appropriate rotation of inventory such that the integrity of the product is not affected.

7.4.3 Bulk receiving and storage practices shall comply with regulatory requirements for prohibited material and medication, if applicable. Records are maintained to demonstrate compliance.

7.4.4 All medicating ingredients shall have an approved Drug Identification Number (DIN) and no expired drugs shall be found in inventory at the facility or associated storage facilities unless clearly labelled for disposal and effectively prevented from inadvertent use.

7.4.5 Medicated material, including flush material to clean out medications, shall be labelled with medication and level (if known) as well as segregated from non-medicated ingredients to prevent cross-contamination or inadvertent use.

7.5 Shipping and Transportation

7.5.1 Finished product shall be staged and loaded under conditions suitable to prevent damage or cross-contamination.

7.5.2 Product staging, loading and transportation procedures shall indicate requirements for:

- i. scheduling and sequencing of loads and arrival of carriers to prevent feed contamination
- ii. maintaining identification of product and inspection for damage of finished product before loading

- iii. lot identification and segregation of product containing medications and prohibited material
- iv. inspection of empty carriers used for transporting feed prior to loading to ensure they are clean, in good repair, suitable for the purpose and free from conditions that may negatively impact the safety of the product
- v. rejecting carriers if the inspection finds problems with the carrier
- vi. confirmation that truck inspection reports support the required clean out procedures to certify that trucks are free from prohibited material residue, medication residue or other contamination risk from a previous load
- vii. loading practices to ensure segregation, isolation or other protective measures to protect product from contamination and cross-contact during loading and transportation operations
- viii. shipping records indicating that all requirements have been met

7.6 Supplier Approval Program

- 7.6.1 There shall be a risk-based supplier approval program documented and implemented that defines the person(s) responsible, selection, evaluation, approval and monitoring of suppliers and contracted service providers.
- 7.6.2 There shall be a documented process to provisionally qualify an unapproved supplier in emergency situations, including provisions to verify that hazards are being controlled.
- 7.6.3 A current register of approved suppliers and contracted service providers shall be maintained.
- 7.6.4 The facility shall document and implement applicable purchasing controls to ensure materials, ingredients and services are purchased only from approved suppliers. Records of supplier review/monitoring, purchasing and receiving shall be maintained.

8. CLEANING, SANITATION AND PEST CONTROL

8.1 Cleaning and Sanitation

- 8.1.1 The facility shall document and implement methods, frequency and responsibility for conducting, monitoring and verifying housekeeping, cleaning and sanitation to ensure buildings, structures, fixtures, feed handling and processing equipment, storage areas, staff amenities and toilet facilities are clean and in good repair.
- 8.1.2 A master schedule for housekeeping, cleaning and sanitation shall be documented and implemented.
- 8.1.3 All equipment and conveyances that come in contact with feed components or finished feed shall be subject to all reasonable and effective cleaning procedures, including validated protocols as required, to prevent unsafe contamination. This must include one or more of the following:
 - i. physical means
 - ii. flushing
 - iii. sectioning by compartment
 - iv. other equally effective procedures, e.g. approved sequencing to prevent unapproved medication residues in subsequent feeds
- 8.1.4 Equipment and premises, including bins and silos, shall be inspected regularly according to a prescribed schedule and procedure, and are cleaned effectively where cleaning is required or warranted.
- 8.1.5 Records of cleaning and sanitation, monitoring and verification activities shall be maintained. Cleaning records are verified at adequate frequency.
- 8.1.6 Cleaning agents, as applicable, shall be suitable for use in the facility and labeled according to regulatory requirements. The facility shall document and maintain a current inventory of all commercial chemicals purchased and used.

8.2 Pest Control

- 8.2.1 The establishment shall have a pest control program documented and implemented. The program shall:
 - i. describe the methods and responsibility for the development, implementation and maintenance of the pest control program
 - ii. identify the target pests and outline the methods used to prevent and/or eliminate pest problems
 - iii. indicate the frequency of physical inspections
 - iv. indicate the training and qualification requirements for pesticide application
 - v. outline the requirements for staff awareness and training for the pest control program
- 8.2.2 Pest control devices shall be designed, identified, located and secured, as appropriate, to prevent potential contamination of materials, products, equipment or facilities. A current map of pest control devices shall be maintained.
- 8.2.3 All pest control chemicals shall be acceptable for use in feed establishments and used according to the label. A list of the chemicals on site and records of all chemicals used

shall be maintained to show the type, quantity and concentrations used as well as where, when and how it was applied, and for which target pests.

- 8.2.4 Pesticide use and application shall be restricted to personnel who are qualified and licensed. Valid applicator licenses shall be maintained on file.
- 8.2.5 Records of inspection, sighting logs and defective findings must be completed, signed and maintained by personnel responsible for the pest management program.
- 8.2.6 The results of the pest control program shall be reviewed for effectiveness and to verify the elimination of applicable pests. Pest control records shall be verified by internal staff at adequate frequency with effective and documented corrective actions when verification shows non-conformances or deficiencies.

8.3 Hazardous Chemicals and Toxic Substances

- 8.3.1 The facility shall document and implement the methods and responsibility for handling, use, storage and disposal as well as the measures taken to ensure the security of hazardous chemicals and toxic substances.
- 8.3.2 Non-medication chemicals, lubricants and paints with direct contact with ingredients during processing or finished product shall be safe for use in a feed manufacturing environment.
- 8.3.3 Hazardous chemical and toxic substances must be clearly labeled with identity, including when stored in temporary and dispensing containers.
- 8.3.4 A current list and up-to-date inventory of hazardous chemicals and toxic substances in use shall be maintained.
- 8.3.5 Storage areas for hazardous chemicals and toxic substances shall be designed and constructed to prevent unsafe storage conditions, cross-contamination or inadvertent use.
- 8.3.6 Hazardous materials shall be dispensed, handled, used according to manufacturer instructions, and applied and disposed of by trained personnel.
- 8.3.7 Personnel shall be trained on proper handling, use, management of spills and disposal of hazardous materials. The safety data sheet (SDS) of the hazardous materials must be available.

9. EQUIPMENT PERFORMANCE AND MAINTENANCE

9.1 Equipment Design

- 9.1.1 Equipment shall be designed, constructed, located, operated and maintained to facilitate inspection and cleanout procedures and to prevent unsafe cross-contamination of incoming materials and during the preparation of feed.
- 9.1.2 Equipment design and operation shall prevent unsafe contamination of ingredients and feed with chemicals and/or pathogens.

9.2 Preventive Maintenance

- 9.2.1 The preventive maintenance program shall be documented and indicate the methods, responsibility and required record-keeping for the maintenance and repair of the facility, equipment, vehicles and buildings. The program must be implemented in a manner that minimizes the risk of product, packaging or equipment contamination.
- 9.2.2 A maintenance schedule shall be prepared and followed to cover routine maintenance of any area and equipment that could affect product safety.
- 9.2.3 Maintenance staff shall be trained in the feed hazards associated with their activities and comply with the site's personnel and process hygiene requirements.
- 9.2.4 Maintenance contractors shall be provided with a written copy of the facility's requirements for visitor hygiene procedures before entering any feed processing or handling areas, and escorted, as required, until their work is completed.
- 9.2.5 Procedures for conducting maintenance activities shall be documented and implemented.
- 9.2.6 Preventive maintenance program and records are verified at an adequate frequency with documented corrective actions and follow up actions taken when verification shows non-conformances.

9.3 Calibration

- 9.3.1 All measuring, testing and inspection equipment used for monitoring activities outlined in PRPs and feed safety plans that require calibration shall be identified. Methods and responsibility for the calibration and re-calibration of the equipment shall be documented and implemented to ensure they can produce results that are valid and operating within acceptable limits.
- 9.3.2 External calibration (or internal calibration to a traceable reference standard) of all critical equipment shall be performed by trained personnel or qualified contractors and according to written and valid calibration methods.
- 9.3.3 Calibration data must be appropriate to the resolution of the equipment (e.g. if a scale reads to two decimal places, calibration data must also be documented to two decimal places).
- 9.3.4 The frequency of all critical equipment calibration shall be according to regulatory requirements, the equipment manufacturer's recommended schedule, and at least once annually.
- 9.3.5 All scales and metering devices used in the preparation of feeds shall be appropriate and calibrated for the range of weights and volumes to be measured. They must be

- calibrated upon installation and at least once annually or more frequently as may be necessary (e.g. after repairs or significant changes) to ensure their proper functioning.
- 9.3.6 Weights used to check scale accuracy must be readily available and protected from damage or deterioration.
- 9.3.7 If after calibration, measuring/testing/inspection equipment is determined to be operating outside acceptable limits, procedures shall be documented and implemented to address the disposal of potentially affected products.
- 9.3.8 Calibration records shall be maintained and verified at adequate frequency with documented corrective actions and follow up taken when verification showed non-conformances.

9.4 Mixer Performance Testing

- 9.4.1 The manufacturing establishment shall document and implement methods, responsibility and frequency for conducting mixer performance testing. At a minimum, mixer performance shall be tested as follows:
- i. upon installation
 - ii. within one month after a major repair or modification that could impact function
 - iii. at minimum every three (3) year(s) or as required by the Canadian Food Inspection Agency (CFIA), provincial or local authorities
- 9.4.2 Mixer Coefficient of Variation (CV) limits must be:
- i. no greater than 5% for dilute drug premixes
 - ii. no greater than 10% for micro and macro premixes and supplements
 - iii. no greater than 15% for complete feeds and total mixed rations

10. PERSONNEL

10.1 Training Program

- 10.1.1 A training program shall be documented and implemented to ensure employees receive adequate feed safety training. The program shall address:
- i. responsibility for implementation of the training program and delivery of training
 - ii. training requirements aligned to the tasks and duties that personnel are required to perform (as defined in job descriptions) including how all tasks critical to meeting regulatory compliance, the HACCP and feed safety plan are to be performed
 - iii. provision of training materials and delivery of training in languages understood by personnel
 - iv. frequency of training including refresher training (minimum every 12 months for tasks significant to feed safety)
 - v. method of assessing the implementation and effectiveness of training
 - vi. required training records
- 10.1.2 Training shall be provided to all employees relative to their duties and with respect to the prevention of contamination and feed safety.
- 10.1.3 Records of training provided shall be documented and maintained. Staff training and evaluation records shall be verified at an adequate frequency (minimum every 12 months for tasks significant to feed safety control). Corrective actions and follow up actions shall be taken and documented when verification shows non-conformances.
- 10.1.4 An on-going evaluation and supervision program of employees shall be maintained. Staff retraining and re-evaluation shall be performed promptly in response to feed safety related non-conformances identified through supervisory review of tasks, records, customer complaints, corrective action and audits (internal and external).

10.2 Hygiene

10.2.1 Personnel Policies

- 10.2.1.1 The establishment shall document and implement requirements for personal hygiene and behaviour to ensure that employees do not contribute to contamination. Requirements shall address:
- i. general cleanliness of work apparel
 - ii. eating, drinking, chewing gum and tobacco use and specified areas where these activities can be conducted
 - iii. handwashing and use of gloves, as applicable
 - iv. control measures to avoid hazards presented by jewelry and other items carried on a person
 - v. required training
- 10.2.1.2 Personnel shall be trained on all personal hygiene and behaviour requirements for the establishment.
- 10.2.1.3 All personnel, visitors and contractors shall be required to comply with the documented requirements.

- 10.2.1.4 The facility shall have measures in place to ensure that feed, feed production and handling areas and equipment are protected from contamination by:
 - i. personnel suffering from infectious [diseases](#)
 - ii. personnel with exposed cuts, sores or lesions
- 10.2.2 Staff Amenities and Sanitary Facilities
 - 10.2.2.1 Employee facilities such as personal hygiene facilities, toilets, lunchrooms and change rooms shall be located and designed to prevent contamination of feed or production areas.
 - 10.2.2.2 Clothing and any required protective apparel that is worn by personnel in feed production, handling and storage areas shall not pose a feed safety risk.
 - 10.2.2.3 Handwashing and toilet facilities shall be identified, clean, functional and appropriately stocked.
 - 10.2.2.4 Change rooms shall be provided for staff engaged in the processing of feeds or processing operations in which clothing can be soiled. Provision shall be made for staff to store their street clothing and personal items separate from feed production, handling and storage areas.
 - 10.2.2.5 Designated eating areas shall be provided and located away from feed production, handling and storage areas. Eating areas (inside and outside) shall be kept clean, free from waste materials and maintained in a manner that minimizes the potential for pest harbourage and contamination of feed or production areas.

11. TRACEABILITY, COMPLAINTS AND RECALLS

11.1 Product Identification

- 11.1.1 Methods and responsibility for identifying raw materials, ingredients, packaging materials, work-in-progress, process inputs and finished products during all stages of production and storage must be documented.
- 11.1.2 Product identification ([lot codes](#), [unique identifiers](#), tag stamps, product labels, bills of lading, etc.) must be legible and indelible. Distribution records shall contain product identification information.
- 11.1.3 Product identification records shall be maintained for the minimum time required by applicable legislation.

11.2 Labels

- 11.2.1 Finished product labels shall be accurate, comply with the relevant legislation and be approved by qualified company personnel.
- 11.2.2 The organization shall document and implement procedures for label control, including storage, review, disposal, issuance and application of labels.

11.3 Use of FeedAssure® Mark

- 11.3.1 Certified facilities shall comply with the requirements for using the FeedAssure® mark.

11.4 Traceability

- 11.4.1 The facility shall document and implement the methods used to trace product. The [traceability](#) system shall comply with the relevant legislation.
- 11.4.2 Facility records shall identify and effectively trace:
 - i. raw materials, ingredients and packaging back to the suppliers of these goods
 - ii. ingredients, intermediate products and reworked materials/products to finished product
 - iii. finished product to distribution and shipping records
- 11.4.3 The facility shall maintain accurate traceability records. Distribution records must contain traceable product identification information and clearly indicate the next level of distribution (one step forward) to allow adequate product tracking.
- 11.4.4 The effectiveness of the product traceability system shall be verified at least annually with documented corrective actions and follow up actions taken when verification shows non-conformances.

11.5 Complaint Management

- 11.5.1 The organization shall document and implement the methods and responsibility for dealing with customer complaints.
- 11.5.2 Records of customer complaints and their investigations shall be maintained and include:
 - i. date of the complaint
 - ii. name and address of the complainant

- iii. appropriate identification of the product in question, including lot number and date of manufacture
- iv. details of the complaint
- v. details of investigations and corrective actions taken by the facility to address the complaint

11.6 Withdrawing Product and Recall Procedures

- 11.6.1 The organization shall document and implement the methods used to withdraw or recall any product.
- 11.6.2 Recall procedures shall comply with regulatory requirements and shall be as follows:
 - i. Identify those responsible for initiating, managing and investigating a withdrawn product recall.
 - ii. Outline a communication plan to inform customers, consumers and authorities (if applicable) in a timely manner appropriate to the nature of the incident.
 - iii. Define the methods to identify, locate, initiate return, and define disposition of affected materials and finished product both within the facility and that have left the facility.
 - iv. Define the required frequency of conducting a mock recall.
 - v. Define the parameters for recall effectiveness including the time frame for completion.
- 11.6.3 The procedures for product withdraw/recall must be reviewed, tested and verified to demonstrate efficacy at least annually. Documented corrective actions and follow up actions shall be taken when verification indicates non-conformances.
- 11.6.4 Product selection and frequency of mock recalls shall be listed in recall procedures. A mock recall shall be done at least once annually per distribution method (products with different distribution methods, e.g. bag vs. bulk should have separate mock recalls).
- 11.6.5 The organization shall maintain records of all withdrawn products, recalls and mock recalls.

12. MANUFACTURING CONTROLS

12.1 Specifications

12.1.1 Raw and packaging materials

- 12.1.1.1 Specifications for all raw and packaging materials shall be documented and kept current. This includes, but is not limited to, ingredients, hazardous chemicals and processing aids that have an impact on finished product safety.
- 12.1.1.2 All raw and packaging materials shall comply with the relevant legislation in the country of manufacture and country of destination/use.
- 12.1.1.3 The methods and responsibility for developing and approving raw materials, ingredients and packaging specifications shall be documented and include a written specification change procedure and required records.
- 12.1.1.4 Manufacturing establishments shall have documented and implemented procedures, responsibility and program schedule for inspection, sampling and analysis of raw materials, as applicable.
- 12.1.1.5 A register of raw and packaging material specifications and labels shall be maintained and kept current.

12.1.2 Finished Product Specifications

- 12.1.2.1 Finished product specifications shall be documented, current and approved by the facility. They should be accessible to relevant staff and may include:
 - i. microbiological, medication and chemical limits
 - ii. labeling and packaging requirements
 - iii. requirements related to delivery and post-delivery activities
 - iv. intended use

12.1.3 A register of finished product specifications shall be maintained.

12.1.4 Contract Service Provider Specifications

- 12.1.4.1 The facility shall document and implement specifications for contract services that have an impact on feed safety. Specifications shall include:
 - i. a full description of the service to be provided
 - ii. relevant training requirements of all contract personnel
 - iii. criteria for monitoring and evaluating contracted service providers
- 12.1.4.2 The facility shall maintain documentation related to the monitoring and evaluation of contracted service providers.

12.1.5 Contract Manufacturer Specifications

- 12.1.5.1 The facility shall document and implement specifications for contracted manufacturing services to indicate, as applicable:
 - i. feed safety and customer product requirements
 - ii. requirements for sourcing and acquisition of raw materials
 - iii. requirements for product realization, packaging, labeling and shipping
 - iv. criteria for monitoring and evaluating contracted manufacturers
- 12.1.5.2 The facility shall maintain documentation related to contracts, changes and approval to contractual agreements as well as the monitoring and evaluation of contracted manufacturers.

12.2 Product Formulation

- 12.2.1 Feed product formulations shall be documented for every feed prepared by the facility detailing:
 - i. the name of the feed
 - ii. the name and weight of each ingredient (including any medication) to be used in preparing the feed product including the stated amount of each ingredient to be included
 - iii. any specific manufacturing instructions with regard to flushing, sequencing, cleanout procedures and any other special instructions needed
 - iv. requirements for incorporation of in-process, reprocessing or rework of materials
- 12.2.2 Feed product formulations shall be developed, checked, dated, signed and authorized by a person designated by the establishment.

12.3 Manufacturing Processes

- 12.3.1 Procedures shall be documented and implemented to ensure that feed is manufactured to approved product formulations as well as uses only materials and ingredients that are fit for purpose and meet the specifications for that feed.
- 12.3.2 Yield discrepancies between batched and shipping weights greater than or equal to five percent ($\geq 5\%$) must be investigated to verify that declared nutrient and/or medication levels are within acceptable limits.
- 12.3.3 Procedures and policies shall be documented, validated and implemented to effectively minimize the risk of product contamination by:
 - i. raw materials or ingredients prohibited from use in the manufacture of the feed
 - ii. foreign matter introduction during the manufacturing/production process
- 12.3.4 Effectiveness of procedures must be verified at least annually and documented. Corrective actions must be documented and implemented when an issue is identified.
- 12.3.5 If applicable, the responsibility and methods used to control allergens, prevent sources of allergens from contaminating product and allergen product labeling shall be documented and implemented.

12.4 Identification and Control of Medications, Medicated Ingredients and Medicated Feed

- 12.4.1 The organization shall document and implement methods and responsibility applicable to the purchase, identification, storage, security and use of medications at the facility.
- 12.4.2 Medications shall be purchased from approved suppliers in accordance with applicable legislation and be correctly labeled by the manufacturer. Purchase records shall be maintained.
- 12.4.3 Access to medications shall be restricted to trained and authorized personnel.
- 12.4.4 All medications included in feed shall be added in accordance with regulatory requirements (i.e. veterinary prescriptions, label instructions).
- 12.4.5 An inventory of all medications purchased and used shall be maintained for each production day. The critical limit for medication reconciliation shall be no more than 5% of daily use for all medications.
- 12.4.6 Medications shall be subject to proper rotation based on expiration date. Expired medications shall not be used.
- 12.4.7 The site shall dispose of unused medications, expired medications and empty containers in accordance with regulatory requirements. The site shall also ensure that empty containers are not re-used and are isolated and securely stored while awaiting disposal.

12.5 Conformity of Finished Products to Specifications

- 12.5.1 Sampling and Testing
 - 12.5.1.1 Manufacturing establishments shall have documented and implemented procedures for sampling and analysis of finished product to verify label accuracy.
 - 12.5.1.2 Records of all inspections and analyses shall be maintained.
 - 12.5.1.3 Representative samples of each lot or shipment of finished product must be retained for a minimum of six weeks (42 days) after the distribution of that lot or shipment of feed by the manufacturer is complete. The samples must be labeled with appropriate information (e.g. lot number, feed name, customer name, date, etc.) to allow it to be matched to the batch of feed it represents.
- 12.5.2 Laboratory Facilities and Analysis Requirements
 - 12.5.2.1 All laboratory analyses must be conducted to nationally recognized methods or alternative methods which are validated as equivalent to any nationally recognized methods.
 - 12.5.2.2 If applicable, on-site laboratories conducting chemical and microbiological analysis that may pose a risk to product safety shall be located separate from any feed processing or handling activity. Access to the laboratories shall be limited to authorized personnel only.
- 12.5.3 Non-conforming Materials, Processes and Finished Products and Materials for Reprocessing
 - 12.5.3.1 The organization shall document and implement methods and responsibility for the identification, handling, use and disposal (as applicable) of non-conforming materials (e.g. ingredients, packaging) and products to minimize the risk of inadvertent use, improper use or impacting the integrity of finished product.

- 12.5.3.2 Non-conforming equipment must be effectively repaired or disposed of in a manner that minimizes the risk of inadvertent use, improper use or impacting the integrity of finished product.
- 12.5.3.3 Records of the handling, corrective action and disposal of non-conforming product or equipment shall be maintained.
- 12.5.3.4 The organization shall document and implement methods and responsibility for the identification, assessment, segregation, handling, use and disposal, as applicable, to prevent unsafe contamination of other feeds and ingredients from:
 - i. materials for reprocessing (rework) such as dust collector materials, feed for reprocessing and flush materials
 - ii. returned product
- 12.5.3.5 Records of the assessment and use of any reprocessing materials and returned product must be documented.
- 12.5.4 Product Release
 - 12.5.4.1 The facility shall document and implement the methods and responsibility for the release of products based on defined release criteria.
 - 12.5.4.2 Records of all products released shall be maintained.

12.6 Manufacturing Records

- 12.6.1 All production documents, formulations, veterinary prescriptions, laboratory results, shipping and/or distribution documents and any other documents which provide evidence that each lot of feed was manufactured according to these standards shall be retained on-site and be readily accessible for the minimum time required by regulations after the master formula for that feed was last used. If there is no minimum time period specified in regulation, records should be kept for a minimum of one year.

Glossary

Acceptable level	A level of hazard in a food/feed at or below which the food is considered to be safe according to its intended use. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021]
Annually	Within a 12-month period from the last time a task was performed.
Batch	All of the feed resulting from ingredients being added to one mixer load according to the mixing sheet for that specific product.
Biosecurity	Procedures and operational or physical measures designed to reduce the risk of introduction, establishment and spread of animal or plant diseases, infections or infestations to, from and within a population. [ANAC National Biosecurity Guide for the Livestock and Poultry Feed Sector, August 2018]
Bulk vehicle	A tank truck, hopper truck, rail tank car, hopper car, cargo tank, portable tank, freight container, or hopper bin, or any other vehicle in which feed is shipped in bulk.
Calibration	The demonstration that a particular instrument or device produces results within specified limits by comparison with those produced by a reference or traceable standard over an appropriate range of measurements. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021]
Canadian Food Inspection Agency (CFIA)	The government agency primarily responsible for regulating the feed industry; administers the <i>Feeds Act</i> and the <i>Health of Animals Act</i> as well as any other regulatory provisions that are delegated to it.
Carrier	See: Conveyance , Vehicle
Competence	Ability to apply knowledge and skills to achieve intended results. [ISO 22000:2018]
Concealment	The process of fraudulently hiding or failing to reveal safety or quality risks. [GMP+ D1.3 Feed Fraud Information document 3.18 Version: January 19,2017]
Contaminant	Any substance not intended to be present in feed ingredients and feed for food producing animals, which is present as a result of the production, manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such feed ingredients and feed, or as a result of environmental contamination. [ISO/TS 22002-6:2016, adapted]
Contamination	Introduction or occurrence of a contaminant in feed ingredients and feed for food producing animals or the production environment, including

contamination originating from the previous use of equipment. [ISO/TS 22002-6:2016, adapted]

See also: [Unsafe contamination](#)

Continual improvement	Recurring activity to enhance performance. Performance can relate to the management of activities, processes, products (including services), systems or organizations. [ISO 22000:2018]
Contract manufacturer	Involves outsourcing production processes to a third-party company. The contract manufacturer is responsible for making the product to specification. In contract manufacturing, the third-party company hired to produce the goods is supplying the manufacturing process as well as sourcing all of the raw materials.
Control limit (CL)	A measurable value which separates acceptability from unacceptability for any control measures.
Control measure	Any action and activity that can be used to prevent or eliminate a feed/food safety hazard or reduce it to an acceptable level. [FAO, WHO, 2003, adapted]
Conveyance	A vessel, aircraft, train, motor vehicle, trailer or other means of transportation, including a cargo container that is used to convey materials to or from an establishment and that is unloaded or loaded at the establishment. [Feeds Acts, 1985, adapted] See also: Carrier , Vehicle
Corrective action	Any action taken when a deviation occurs in order to re-establish control, segregate and determine the disposition of the affected product, if any, and prevent or minimize reoccurrence of the deviation. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021] See also: Preventive action
Critical control point (CCP)	A step at which a control measure or control measures, essential to control a hazard, is/are applied in a HACCP system to prevent, eliminate, or reduce the hazard to an acceptable level. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021, adapted]
Critical limit	Measurable value which separates acceptability from unacceptability at a critical control point. [ISO 22000:2018]
Cross-contamination	Contamination of a material or product with another material or product, including contamination originating from the previous use of equipment. [FAO, WHO, 2013b]

Contamination from one lot or batch of feed or feed ingredient to another.
[ISO/TS 22002-6:2016, adapted]

Detained	Any article seized pursuant to <i>Feeds Act</i> and <i>Health of Animals Act</i> and their associated regulations.
Device	Any weight, weighing machine, static measure or measuring machine including any equipment and accessories attached to or used in conjunction with the device that has or can have an effect on the accuracy. [Weights and Measures Act, 1985]
Dilute drug premix	A drug for veterinary use that results from mixing a drug premix with a feed to such a level that at least 10 kg of the resulting mixture is required to medicate one tonne of complete feed with the lowest approved dosage level of the drug. [<i>Food and Drug Regulations</i> (C.R.C., c. 870)]
Disease	Includes: (a) a reportable disease and any other disease that may affect an animal or that may be transmitted by an animal to a person, and (b) the causative agent of any such disease. [Health of Animals Act, 1990]
Document	Refers to a procedure, plan, form, or record template.
Emergency	Is an abnormal situation that requires prompt action, beyond normal procedures, in order to limit damage to persons, property, animals or the environment.
Emergency drug release	The provisional approval by Health Canada of an unapproved drug for emergency veterinary use.
Enhanced feed ban statement	<p>A statement required on labels and documentation for animal food/feed containing prohibited material (statement must be bilingual):</p> <p>“Feeding this product to cattle, sheep, deer or other ruminants is illegal and is subject to fines or other punishment under the <i>Health of Animals Act</i>.”</p> <p>« Il est interdit d'en nourrir les bœufs, moutons, cerfs et autres ruminants et des amendes ou autres peines sont prévues à cet égard par la <i>Loi sur la santé des animaux</i>. »</p>
Feed	Includes both feed and feed ingredients. Any single or multiple materials, whether processed, semi-processed or raw, intended to be fed to animals that are raised to produce food for human consumption. [Codex CAC/G: 81-2013]

Feed ban	<p>A prohibition on the feeding of certain mammalian proteins to ruminants as per the <i>Health of Animal Regulations</i>, to limit bovine spongiform encephalopathy (BSE) spread among cattle.</p> <p>See also: Prohibited material</p>
Feed chain	<p>Sequence of the stages in the production, processing, distribution, storage and handling of feed and its ingredients, from primary production to consumption. This includes the production of materials intended to come into contact with feed and its ingredients as well as service providers. [ISO 22000:2018, adapted]</p>
Feed defense	<p>The process to ensure the security of feed ingredients and feed from all forms of intentional malicious acts intended to cause wide-scale harm to animal and public health, including acts of terrorism targeting the feed supply. [GFSI 2017; PAS 96:2017; FDA, adapted]</p>
Feed fraud	<p>Feed fraud is a collective term used to encompass the intentional substitution, addition, tampering, or misrepresentation of feed, feed ingredients, or feed packaging; or false or misleading statements made about a product for economic gain. [FAMI-QS Feed Fraud and Prevention and Defense Module Version 1.0/ 2019-09-02]</p>
Feed ingredient	<p>A component part or constituent of any combination or mixture making up a feed, whether or not it has a nutritional value in the animal's diet. Ingredients are of plant, animal or aquatic origin, or other organic or inorganic substances. [CAC/GL 81-2013]</p>
Feed safety	<p>Assurance that feed, administered according to its intended use, will not cause adverse health effects to the animals or to food of animal origin. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021]</p>
Feed safety hazard	<p>Biological, chemical or physical agent in feed or feed ingredients with the potential to cause an adverse health effect in animals and/or humans. [ISO/TS 22002-6:2016, adapted]</p>
Feed safety plan	<p>A plan that provides a systematic approach based on Hazard Analysis and Critical Control Point (HACCP) principles for the identification of feed safety hazards that could occur. The plan also includes details of the actions to be taken to prevent and control any hazards that could cause feed-borne illness or injury.</p> <p>See also: Preventive control plan</p>
Flow diagram	<p>Schematic and systematic presentation of the sequence and interactions of steps in the process. [ISO 22000:2018]</p>

Flushing	Passing a substance through the equipment to clean out residue from the previous batch or lot of feed.
Formula	A list of ingredients and weight of each ingredient to be used in the preparation of a specific feed product, including the stated weight of the final feed product.
Fraudulent dilution	The process of fraudulently mixing a product of high value with a product of lower value. [GMP+D1.3 Feed Fraud Information document 3.18 Version: January 19,2017]
Fraudulent substitution	Illegal or unauthorized replacement of one product with another (e.g. high value with another product of lower value). [Source GMP+ D1.3 Feed Fraud Information document 3/18 Version: January 19, 2017]
Hazard	See: Feed safety hazard
Hazard analysis	<p>The process of collecting and evaluating information on hazards identified in raw materials and other ingredients, the environment, in the process or in the feed or food, and conditions leading to their presence to determine the significance level of the hazards. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021, adapted]</p> <p>See also: Risk assessment</p>
Intended use	<p>Describes how the product is to be used and includes relevant information on:</p> <ul style="list-style-type: none"> • the species or category of animals for which the feed or feed ingredient is intended • any restrictions on which species or category of animals the feed or feed ingredient can be fed to • whether the product is to be fed directly to animals or is to be used as a component of a further mixed feed ration
Internal audit	A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled; conducted by the organization itself, or by an external party on its behalf. [ISO 22000:2018]
Livestock	Animals which are domestically raised or kept, including cattle, sheep and goats; bison, water buffalo, cervids, llamas and alpacas; swine; poultry; ratites, pigeons, pheasants, partridges, quail, grouse, guinea fowl and pea fowl; horses and rabbits; bees; finfish intended for human consumption as food; and molluscs and crustaceans intended for human consumption as food. [<i>Feeds Regulations, 2022</i> , published in <i>Canada Gazette</i> , Part I]

Lot (or run)	<p>Defined quantity of a product produced and/or processed and/or packaged essentially under the same conditions. [ISO 22000:2018]</p> <p>For mixed feed, a lot is all of the feed resulting from the manufacture of consecutive batches of feed, prepared with feed ingredients added according to the formula and the mixing sheet for a specific product. In the case of continuous mixers, a lot would constitute all of the feed manufactured continuously, without interruption, according to the specific formula and mixing sheet for a specific product.</p>
Lot code	A code that can be used to identify a lot of feed. A lot code can be numeric, alphabetic or alphanumeric.
Management system	Set of interrelated or interacting elements of an organization to establish policies and objectives and processes to achieve those objectives. [ISO 22000:2018]
Mislabeling	The process of placing false claims or information on packaging or product documents. This includes substitution, concealment, and unapproved addition. [Source GMP+ D1.3 Feed Fraud Information document 3/18 Version: January 19, 2017]
Mixer	Equipment used to combine or blend feed ingredients into a uniform blend or consistency.
Mixer performance testing	Assessing the level of one or more substances in a pre-established number of feed samples in a batch of feed to ensure the mixer is blending the feed uniformly. The coefficient of variation (CV) for the batch is calculated to determine whether the batch of feed tested was uniform as an indicator of mixer performance. [CFIA Guidance - Developing Mixer Performance Testing Procedures]
Monitoring	Determining the status of a system, a process or an activity. To determine the status, there may be a need to check, supervise or critically observe. In the context of feed safety, monitoring is conducting a planned sequence of observations or measurements to assess whether a process is operating as intended. [ISO 22000:2018, adapted]
Must	<p>Mandatory requirement.</p> <p>See also: Shall</p>
Operational prerequisite program (OPRP)	Control measure or combination of control measures applied to prevent or reduce a feed safety hazard to an acceptable level, and where action criterion and measurement or observation enable effective control of the process and/or product. An operational prerequisite program is similar to an operational

control and is an intermediate step in the hierarchy of control measures to address hazards specific to feed. [ISO 22000:2018, adapted]

Policy	Intentions and direction of an organization as formally expressed by its senior management. [ISO 22000:2018, adapted]
Prerequisite program (PRP)	<p>Basic conditions and activities that are necessary within the organization and throughout the feed chain to maintain feed safety.</p> <p>Programs (including good hygiene practices, good agricultural practices and good manufacturing practices, as well as other practices and procedures such as training and traceability) that establish the basic environmental and operating conditions that set the foundation for implementation of a HACCP system. [FAO/IFIF Feed Manual - Good Practices for the Feed Sector 2021]</p>
Preventive action	<p>Action to eliminate the cause of a potential nonconformity or other undesirable potential situation. Preventive action is taken to prevent occurrence. [ISO 9000:2005]</p> <p>See also: Corrective action</p>
Preventive controls (PC)	<p>Refers to a single measure or combination of measures that forms a system focused on prevention to control risks to feed and feed ingredients. [<i>Safe Food for Canadians Regulations</i>: Glossary of key terms, adapted]</p> <p>See also: Operational prerequisite program</p>
Preventive control plan (PCP)	<p>Refers to a written document that demonstrates how risks to feed and feed ingredients are identified and controlled. [<i>Safe Food for Canadians Regulations</i>: Glossary of key terms, adapted]</p> <p>See also: Feed safety plan</p>
Recall	<p>The removal of a feed from distribution, sale or consumption that presents a significant health or safety threat because of a product defect or contamination.</p> <p>Compare with: Withdrawn product</p>
Record	Refers to official evidence that protocols/plans/procedures have been conducted.
Reportable disease	Reportable diseases are outlined in the Health of Animals Act and Reportable Diseases Regulations and are usually of significant importance to human or animal health or to the Canadian economy.

Risk assessment	<p>A scientifically based process consisting of the following steps: (i) hazard identification, (ii) hazard characterization, (iii) exposure assessment, and (iv) risk characterization. [FAO, WHO, 2019a]</p> <p>See also: Hazard analysis</p>
Prohibited material	<p>Also called ruminant-prohibited material. Ingredients that are banned by regulation for feeding to ruminants. Defined in the <i>Health of Animal Regulations</i>, section 162 as mammalian protein products, other than from porcines or equines, and not including milk, blood, gelatin, rendered animal fats or their products. An example is ruminant meat and bone meal.</p>
Senior management	<p>Individuals at the highest level on site responsible for the business operation and for implementation and improvement of the feed safety management system. [SQF v8, adapted]</p>
Shall	<p>Mandatory requirement.</p> <p>See also: Must</p>
Should	<p>Indicates that the item is recommended, but not mandatory.</p>
Standard operating procedures (SOPs)	<p>A set of step-by-step instructions to carry out a specific task.</p>
Traceability	<p>Ability to follow the history, application, movement and location of an object through specified stage(s) of production, processing and distribution. Movement can relate to the origin of the materials, processing history or distribution of the feed. An object can be a product, a material, a unit, equipment, a service, etc. [ISO 22000:2018, adapted]</p>
Unapproved addition	<p>The process of adding unknown and undeclared substances that are not approved for addition to products. [Source GMP+ D1.3 Feed Fraud Information document 3/18 Version: January 19, 2017]</p>
Unique identifier	<p>A code that can be used to identify or trace a defined quantity of feed and feed ingredients. [CFIA Regulatory requirements: Traceability, 2020-03-26, adapted] This may include a lot code, purchase order number, or a bill of lading number.</p>
Unsafe contamination	<p>Presence of chemical, biological or physical contaminants in feed ingredients or feed that compromise the safety of livestock consuming the feed and/or compromise the safety of meat, milk or eggs produced from livestock and poultry consuming the feed.</p>

See also: [Contamination](#)

Validation	<p>Obtaining evidence that a control measure (or combination of control measures) will be capable of effectively controlling the intended hazard. Validation is performed at the time a control measure combination is designed, when there is a change in condition or items, or whenever changes are made to the implemented control measures. Validation is applied prior to an activity and provides information about the capability to deliver intended results. [ISO 22000:2018, adapted]</p>
Vehicle	<p>A land conveyance that is motorized, such as a motor vehicle, or that moves on rails, such as a train, which is used in feed transportation operations.</p> <p>See also: Carrier, Conveyance</p>
Verification	<p>Application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine whether the control measure is and has been operating as intended.</p>
Visitor	<p>A person who is not an employee of the facility and is on the premises such as delivery people, external drivers, auditors, inspectors, corporate personnel, ingredient suppliers, utility personnel, contractors, equipment service and repair technicians.</p>
Vulnerability assessment	<p>Process to identify the susceptibility or exposure to a food fraud risk, which is regarded as a gap or deficiency that could place animal or human health at risk if not addressed. [GFSI Benchmarking Requirements, adapted]</p>
Withdraw(n) product	<p>To voluntarily remove from sale or use because of quality-related factors which have no potential to cause harm to animals or humans.</p> <p>Compare with: Recall</p>