

Edible Cannabis Standards

Implementing and Managing Edible Cannabis Standards

Development

To define detail, scope and purpose.

Development

This information can be used to develop food safety and quality programs that meet the requirements of modern Regulatory, Customer and Industry Standards:

- We take the time to explain the expectations and requirements of food safety and quality compliance as these relate to your food safety and quality programs.
- You may choose to use our Premium Resources to build, enhance or upgrade your food safety and quality program.
- We encourage you to share this webpage with any food compliance associates and peers you believe may benefit from our commitment to providing our users with user-friendly information and resources to achieve superior Food Compliance Culture.
- We welcome your suggestions for additions of general or specific content through the haccp.com Contact Page.

Key Definitions for Edible Cannabis Standards

- **Aflatoxin:** Any of a class of toxic compounds produced by certain moulds found in food. Aflatoxins are attributable to human health impacts such as liver damage and cancer.
- **Cannabinoids:** Cannabinoids include any of a group of closely related compounds which include cannabiniol and the active constituents of cannabis.
- **Cannabis:** Cannabis, often known as Marijuana, is a plant with a stiff upright stem, divided serrated leaves, and glandular hairs that produce a chemical known as Cannabinoids. Cannabis has designated legal and illegal uses based on geographical areas and is often consumed as a psychoactive (mind-altering) drug and for therapeutic applications.
- **Certificate of Analysis:** A document issued by a laboratory that reports the results of testing carried out on a specific sample or batch of material or product.
- **Edible Cannabis Products:** This group of foods is purposefully produced with the addition of any number of forms of cannabis (marijuana) products, extracts, or infusions.
- **Good Laboratory Practices or GLP:** Practices adopted to ensure appropriate levels of control are achieved within a laboratory environment.
- **Good Manufacturing Practices or GMP:** Practices adopted to ensure appropriate levels of control are achieved within a food business environment.
- **Homogeneity:** Homogeneity describes the state of being all the same or all of the same kind. In the context of Edible Cannabis Products, Homogeneity refers to the consistent uniform distribution of Cannabinoids throughout a finished product.
- **Housekeeping:** Cleanliness, neatness, and orderliness of an area with the designation of a proper place for everything and everything in its proper place; good housekeeping practices often preclude the occurrence of product contamination within food businesses. In the context of food businesses, Good Housekeeping Practices or GHP is a term used to describe best practice applications.
- **Immunocompromised:** The term Immunocompromised is used to describe the status of a person having an impaired immune system. An impaired immune system commonly occurs due to illness or as a consequence of medical treatments.
- **ISO/IEC 17025:** ISO/IEC 17025 is a global standard, established by the International Organization for Standardization and the International Electrotechnical Commission, for the technical competence of testing and calibration laboratories.
- **Potency:** The strength of a product, expressed for edible cannabis as the amount of THC or other cannabinoids

per serving and per package.

- **Primary Production:** The production of raw materials for consumption or further processing.
- **Serving Size:** The defined amount of a product intended to be consumed at one time, which for edible cannabis is linked to the amount of THC per serving.
- **Solvent:** Concerning Edible Cannabis Products, a Solvent is a chemical or combination of chemicals used to dissolve other substances. Solvents are often used to extract the Cannabinoids from Marijuana.
- **Terpenoids:** Terpenoids are organic chemicals that are naturally produced by cannabis plants and contribute to the distinctive aroma of such plants and their products.
- **THC or tetrahydrocannabinol:** Tetrahydrocannabinol is a crystalline compound that is the main active ingredient of cannabis.

Edible Cannabis Standards Development

When considering the development, documentation, and implementation of Edible Cannabis Standards within food safety and quality management systems, the following information should be considered to ensure effective outcomes:

About Edible Cannabis Standards

As Edible Cannabis Products become increasingly popular within some jurisdictions, the scope of related Food Safety and Quality considerations for such products has also grown.

As a substance with many lauded (and sometimes debated) human health benefits, Cannabis straddles the line between a therapeutic and recreational substance. Edible Cannabis Products may be consumed by a broad range of individuals, including those who may be suffering from illnesses or undergoing medical treatments that may render them immunocompromised and more susceptible to foodborne illness or related complications.

Because Edible Cannabis Products have a delayed effect on consumers following consumption, it is important to consider that excess consumption to experience the effects of the product may have health impacts. In this regard, it is important to facilitate clear and accurate product labelling to ensure the dosing of THC and other cannabinoids for consumer consideration.

The following information is intended as general guidance only and does not constitute legal advice. It is not the intention of this information to support or oppose the use of Cannabis within Food Production; this information is provided as a resource for the consideration of the application of 'Best Practice' Food Safety and Quality Programs. Food Businesses involved with the production, packaging, and/or sale of Edible Cannabis Products must be aware of the legal requirements both within the jurisdiction of production and also for the jurisdiction of sale.

What Types of Foods may be Infused with Cannabis?

The range and types of foods that may contain Cannabis are broad and varied. As the trend of Edible Cannabis Products has evolved, so too has the innovation spectrum. Common types of Edible Cannabis Foodstuffs may include:

- Alcoholic and Non-alcoholic Beverages;
- Baked Goods;
- Canned Goods;
- Chocolates;
- Hard or Soft Confectionery;
- Infused Oils;
- Savoury Snack Products.

Key Considerations for Product Design and Development



Age restriction symbols help to keep edible cannabis products away from children.

Along with the standard elements of Product Design and Development for the food sector, the following elements require additional consideration for Edible Cannabis Products:

- Serving Size;
- Homogeneity; and
- Restricted Access.

As Edible Cannabis Products typically have a delayed onset of effect, it is generally considered best practice for packaging and labelling to include details of Serving Size (including individually identified servings) and the amount of THC in milligrams per Serving Size and per Package. This is important as Users may consume too much product, resulting in an excessively high dose or potential overdose where Serving Size recommendations are not defined or are not accurate.

Because of the psychoactive (mind-altering) effect of Edible Cannabis Products, they must be restricted from access by Children. In this regard, Product Design and Development protocols must consider the clear identification of Edible Cannabis Products to avoid consumption by Children. Packaging formats and materials should also reduce the risk of inadvertent consumption by Children.

To ensure the amount of THC per serving and per Package is correct, it is important to facilitate a uniform distribution of THC throughout the product. Ensuring Homogeneity of THC within an Edible Cannabis Product means that the THC is evenly distributed throughout the product to ensure the consumer can rely on the specified Serving Size to deliver the related volume of THC. In some jurisdictions, a limit may be mandated for the total volume of THC permitted per Serving, per Package, or both.

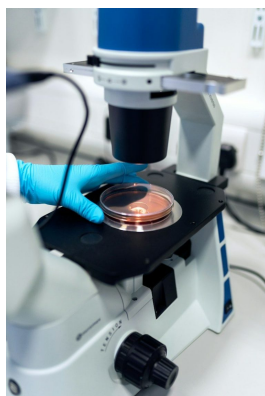
As part of the Edible Cannabis Product Design and Development processes, it is important to consider the available Homogeneity testing methods and whether these are suitable for the product being manufactured. The outcomes of Homogeneity testing are commonly linked to defined acceptable variance tolerances, which are commonly expressed as a percentage.

HACCP Considerations for Cannabis Materials and Products

Contamination of Edible Cannabis Products can be significantly reduced by the application of well-structured Food Safety and Quality Programs based on the HACCP methodology. The following risk areas should be considered as part of any HACCP risk assessment for the use of Cannabis Materials for the production of Edible Cannabis Products:

- Microbiological Hazards, including Pathogens and Spoilage Organisms and Aflatoxin producing Moulds;
- Physical Hazards;
- Chemical Hazards, including Agricultural and Pest Control Chemicals and Processing / Production Chemicals (including Solvents);
- Allergen Hazards;
- Regulatory Hazards, including Homogeneity, Serving Sizes, Packaging, and Labelling Standards;
- Quality Hazards.

Testing and Assessment of Cannabis Materials and Products



Testing of materials and products should be carried out by competent laboratory personnel using suitable methods.

As with any other analytical activity, the Testing and Assessment of Cannabis Materials and Products must be facilitated in a manner that provides consistent robust science-based outcomes. The following considerations are important to achieving 'best practice' Testing and Assessment outcomes:

- Ensuring Good Laboratory Practices concepts are implemented on a perpetual basis;
- Uniform sampling programs and collection methods based on 'best practice' applications;
- Facilitating 'in-process' sampling and testing throughout the process from raw materials through processing to the finished product to gain an understanding of process impacts on key measurable parameters;
- Documented protocols for managing testing and assessment failures;
- Use of standardised testing methodologies to ensure results from different laboratories are measurable against each other;
- Implementation of proficiency testing activities to validate and verify the accuracy of testing and assessment outcomes;
- Using a suitably accredited or licensed external laboratory where required, including laboratories accredited to ISO/IEC 17025 by an accredited independent third party.

Where external laboratories are used, their scope of accreditation and licensing should be verified to ensure they meet testing standards both within the region of manufacture and also for the region of sale and/or use of related Cannabis Materials and Finished Products.

Some jurisdictions may have specific testing and assessment criteria for Cannabis Materials and Products. The general scope of testing and assessment for Cannabis Materials and Products includes:

- Chemistry;
- Microbiology; and
- Physical Characteristics.

Chemistry testing and assessments often cover:

- Cannabinoids (including THC);
- Heavy Metals;
- Mycotoxins;
- Potency, including the application of recognised accepted methods to determine the 'strength' of materials and finished products. The potency is directly related to the specified serving size and related volume of Cannabinoids consumed. Some jurisdictions may mandate acceptable limits for variance tolerances for the Potency of Edible Cannabis Products;
- Terpenoids;
- Residual Pesticides;
- Residual Solvents and Processing Chemicals.

Microbiology testing and assessments often cover:

- Pathogens such as Clostridia species, Salmonella, and E. coli;

- Aflatoxin producing Moulds;
- Spoilage organisms such as Yeasts, Moulds, and Mildew.

Physical testing and assessments often cover:

- Homogeneity, including confirmation of the consistent uniform distribution of Cannabinoids throughout a finished product. Homogeneity is important for ensuring that the potency (or 'strength') of a finished product meets specifications;
- Moisture Content and Water Activity.

Testing and assessment results are often provided from a laboratory as a Certificate of Analysis or as a Certificate of Compliance.

As the global Cannabis sector grows, so too will laboratory standards and testing protocols for related materials and finished products.

Food Fraud Vulnerability

Economically Motivated Adulteration (EMA) is a Food Fraud Risk generally facilitated from within the Food Sector itself, with the intent of increasing profits or lowering costs. It can involve intentionally selling an otherwise inexpensive material for a higher price, or using an inexpensive ingredient to extend or replace a more expensive one. The primary goal of EMA is to gain a financial advantage from selling food products in a way that deceives both customers and consumers, but sometimes it may cause human harm or even death.

In the context of Edible Cannabis Products, the full or partial substitution of naturally derived Cannabinoids (including THC) by synthetically derived Cannabinoids is a potential Food Fraud Risk that can be mitigated through the implementation of a well-structured Food Fraud Risk Management Plan.

You can find out more about Food Fraud Risk Management at haccp.com.

Key Considerations for Edible Cannabis Production Systems

The following requirements within Edible Cannabis Product production systems are covered within this information package:

- Training and Competency;
- Identification and Traceability;
- Primary Production;
- Premises and Facilities;
- Storage, Handling, and Use;
- Packaging Formats;
- Labelling of Edible Cannabis Products and Cannabis Materials;
- Transport and Distribution;
- Controlled Waste Management.

Training and Competency



Staff training should be delivered to everyone whose role affects product safety and legal compliance.

As a controlled material in most jurisdictions, Cannabis (and its many forms) may only be accessed as per prescribed Legislative requirements. In many cases, such materials may only be accessible to those who are of a certain age or who have a legal permit for use.

Procedures and schedules for Training, Competency, and Resources Requirements must be developed, documented, and implemented to ensure personnel, visitors and contractors have the skills and knowledge necessary to maintain required food safety, food quality, and regulatory standards. Training, Competency, and Resources Requirements must be reviewed and verified on an ongoing basis to ensure ongoing positive outcomes.

The nomination of training as a component of a Food Safety Program is to assess the skills and knowledge of participating personnel roles in Food Safety activities. It is not generally the intention of this inclusion to require mandatory training, as it is generally recognised that skills and knowledge may be gained in different ways. Depending on the location and type of business activities, you may be required to display details of officially recognised training on specified roles within the Food Safety Program. Persons managing or participating in food handling and/or processing operations must possess skills and knowledge about the scope of their workplace activities.

Identification and Traceability

As with any Food Business, the application of Identification and Traceability for Edible Cannabis Products is paramount to ensuring adequate product and process control. Many jurisdictions require specific levels of identification and traceability to be applied to each Marijuana plant from 'seed' to 'sale'. Although this may seem cumbersome, it is similar to the expected requirements for the identification and traceability of other food ingredients from 'farm' to 'fork'. Strong identification and traceability systems provide confidence and accountability for the use of controlled materials such as Cannabis.

Identification and Traceability requirements for Cannabis Materials, Edible Cannabis Products, and Sensitive Waste Materials may include:

- Full traceability backward to the 'seed';
- Full traceability forwards to 'sale' to the consumer;
- Clear and concise identification of all items and materials at all times, including from Raw Material Receipt, through Storage, Handling and Use (including applicable Work in Progress and Rework), Transport and Distribution, Sales, and Returns.

Some jurisdictions may also require the accountability of Cannabis Materials and/or Finished Edible Cannabis Products by weight or volume. Where applicable, this should be considered as part of implemented Identification and Traceability Programs.

The data captured as part of Identification and Traceability of Cannabis Materials and Finished Edible Cannabis Products commonly includes:

- Name of the Cannabis Material or Product;
- Description of the type of Cannabis Material or Product;
- Amount or Volume of Cannabis Material or Product (by weight or count);
- Date and Time of the associated transaction;

- Name and licence number of the transferor of the Cannabis Material or Product;
- Name and licence number of the transferee of the Cannabis Material or Product;
- Details of Transport methods used.

Primary Production

Primary production requires special attention regarding the identification and control of all food safety hazards, as it is most often the first step in the food supply chain. This factor can define the safety of the foods involved at later steps including supply, processing, and customer availability.

The control of chemical use is paramount within Primary Production, as it is a point at which chemicals such as pesticides, insecticides, fertilizers, antibiotics, and fungicides among others are applied directly to foods or their surroundings. This produces issues of concern where the chemical content within, or on the foods produced are still present at the time the products become available to consumers. Adhering to the prescribed application rates and procedures for chemicals, in conjunction with allowing the appropriate withholding periods form the basis upon which such hazards are controlled.

Primary Production is also the step at which foods are readily exposed to higher than acceptable levels of pathogenic bacteria, whether it is through the soil, animal faeces, or other environmental factors. These types of hazards are generally controlled through well-structured and developed procedures, which define practices that facilitate the production of safe and suitable foodstuffs for consumers.

Procedures must be developed, documented, and implemented to ensure a food business facilitating Primary Production does not introduce hazards to food consumption or further processing.

Premises and Facilities

The Premises and Facilities applicable to any segment of the Edible Cannabis Products sector must facilitate the safe and suitable storage of related materials and products as per established Food Premises Regulations. Edible Cannabis Product Related Premises and Facilities must:

- Be suitably and appropriately licensed for the scope of activities, processes, and products facilitated;
- Be suitably and appropriately constructed and maintained for the scope of activities, processes, and products facilitated;
- Be supported by suitable prerequisite programs including Cleaning and Sanitation, Pest Control, GMP, and GHP in alignment with the implemented HACCP Plans;
- Ensure suitable security systems are implemented and maintained to exclude unauthorised access to Cannabis Materials, Finished Products, and sensitive Waste Materials.

Storage, Handling, and Use



Storage areas should be organised so that stock can be checked, controlled and accounted for.

Food business Storage and Handling Requirements must be managed appropriately to ensure food safety and quality standards are maintained. It is important to consider that Storage and Handling Requirements may differ significantly for raw materials, packaging, chemicals, work in progress, and finished products. Appropriate Storage and Handling Requirements must also be managed through transport and other peripheral process steps.

Depending on the nature of the food operations undertaken within any food business, adequate Storage and Handling facilities should be available for cooling, cooking, refrigerating, and freezing food, and for controlling critical process control elements such as humidity and light controls where applicable.

Foods can be placed in two general classes depending on their ability to cause foodborne illness:

- Potentially hazardous foods;
- Non-potentially hazardous foods.

It is of utmost importance to identify the Storage and Handling Requirements for both classes of foods, along with ensuring that they are obtained from approved suppliers, then stored and handled appropriately to prevent cross-contamination and the growth of microorganisms.

Storage and Handling activities for Edible Cannabis Products must be facilitated in a manner that provides:

- Adequate lighting for the scope of activities, processes, and products facilitated;
- Suitably efficient ventilation systems;
- Systems for the control of temperature and humidity which reduce the risk of microbial growth within Cannabis Materials or Finished Products;
- Suitable security systems which exclude unauthorised access to Cannabis Materials, Finished Products, and sensitive Waste Materials;
- Reliable identification and traceability of Cannabis Materials, Finished Products, and sensitive Waste Materials at all times;
- Secured quarantine areas for Cannabis Materials and Finished Products that are contaminated, damaged, opened, outdated, or mislabelled before rework or disposal of such items;
- Training, competency verification, and applicable licensing of persons participating within Edible Cannabis Storage, Handling, and Use activities.

Packaging Formats

Above and beyond the packaging requirements for regular foods, additional specific requirements may apply to the packaging of Finished Edible Cannabis Products and Cannabis Materials for sale to consumers. Packaging requirements may include:

- Moisture resistance to maintain suitable Water Activity;
- Child-resistant status;
- Tamper-evident status;
- Re-sealable mechanisms where the packaging contains more than one serving;
- Individual packaging units to define the specified Serving size.

Labelling of Edible Cannabis Products and Cannabis Materials

Above and beyond the labelling requirements for regular foods, additional specific requirements may apply to the labelling of Finished Edible Cannabis Products and Cannabis Materials for sale to consumers. Labelling requirements may include:

- Disclosure of the strain(s) of Marijuana used;
- Inclusion of universally accepted icons or symbols for Cannabis or THC;
- Specified Serving Size in correlation to the amount of THC per Serving or per Package unit;
- Details of pesticide usage;
- Detailed validation of claims related to provenance, the status of health benefits of the product or its ingredients to ensure the accuracy and appropriateness of such claims;
- Statements of product testing, including the Laboratory and Testing outcomes;
- Date of cultivation of Cannabis Materials;
- Expiration date;
- Required Warning Statements, including those related to delayed effects, psychoactive (mind-altering) effects, avoidance of access or consumption by children, animals, or pregnant women, health risks and impacts, and illegal status within some jurisdictions;
- Recommended Instructions and/or Suggestions for use (as related to the Serving Size).

In cases where packaging units are used to define the specified Serving Size, it is commonplace for key labelling details to be placed on the individual packaging units (as well as the larger package).

Some jurisdictions may also mandate the use of prescriptive wording on Edible Cannabis Products and Cannabis Materials, such as “THIS IS A MARIJUANA PRODUCT” or “THIS PRODUCT CONTAINS CANNABIS”.



An example of a THC warning symbol used on packaging in some jurisdictions.



Some jurisdictions accept simple symbols to show that a product contains THC.



Warning symbols are often required alongside serving size and THC content.



Some jurisdictions prescribe a standard symbol for products that contain THC.

Transport and Distribution

Requirements for the Transport and Distribution of Cannabis Materials and/or Finished Products may include:

- Suitably efficient ventilation systems;
- Systems for the control of temperature and humidity which reduce the risk of microbial growth within Cannabis Materials or Finished Products;
- Suitable security systems which exclude unauthorised access to Cannabis Materials, Finished Products, and sensitive Waste Materials, including consideration of Vehicle Alarms and other security mechanisms;
- Reliable identification and traceability of Cannabis Materials, Finished Products, and sensitive Waste Materials at all times;
- Suitably controlled segregation of materials, products, and waste containing Cannabis and other materials and products that do not contain Cannabis;
- Training, competency verification, and applicable licensing of persons participating in Edible Cannabis Transport and Distribution activities.

Some jurisdictions also require the definition of 'transport' as part of Edible Cannabis programs. This is intended to ensure at all times that required controls are fully implemented.

Controlled Waste Management

The food industry produces a large number of by-products or waste, which must be disposed of or recycled. Suitable provision must be made for the removal and storage of all waste variants that occur as a consequence of operating any food business. Waste and Recyclable materials must not be allowed to accumulate in food handling, storage, or other operational working areas and the adjoining environment except so far as is unavoidable for the proper functioning of the food business. Waste storage, processing, and handling areas must be kept appropriately clean and sanitised. Waste and Recyclables Management systems should be monitored for effectiveness and periodically verified by methods such as pre-operational inspections or, where appropriate, microbiological sampling of the operational environment.

It is important to consider that 'waste' by definition may also include items such as out-of-specification products, which may need to be held until a decision is made regarding their disposal.

Waste Management within the Edible Cannabis sector needs to cover:

- Safe and secure storage of waste materials before disposal;
- Safe and secure controlled waste disposal methods, including formal documented secure destruction of non-conforming, unsuitable or unsafe Cannabis Materials and/or Edible Cannabis Products;
- Monitoring and recording of waste disposal activities per relevant legal requirements.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Development requirements in relation to their items.

Regulatory and Industry References

The following references provide further guidance on laboratory testing, hygiene and food safety management relevant to edible cannabis products. Always confirm the current edition before relying on them:

- ISO/IEC 17025:2017, General requirements for the competence of testing and calibration laboratories (International Organization for Standardization and the International Electrotechnical Commission);
- Codex Alimentarius Codes of Practice, including the General Principles of Food Hygiene (CXC 1-1969), which sets out the HACCP system;
- ISO 22000:2018, Food safety management systems: Requirements for any organization in the food chain (International Organization for Standardization).

Cannabis requirements differ by jurisdiction. Confirm the requirements of the relevant regulator for the place of production and sale. In Australia, food is regulated through the Australia New Zealand Food Standards Code.

Edible Cannabis Standards Development Key Points

- Edible Cannabis Standards programs must be developed to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The Senior Management of your business is committed to providing adequate resources for the development of your Edible Cannabis Standards program;
- Should you require additional resources for the development of Edible Cannabis Standards program elements, please discuss this with the relevant Senior Management representative;
- A properly developed Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly developed Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Documentation

To establish the developed detail in a viewable format to facilitate information.

Documentation

Document: A document provides guidance and/or direction for performing work, making decisions, or rendering judgments which affect the safety or quality of the products or services that customers receive.

Documented policies, procedures, work instructions and schedules form the basis of any food safety and quality management system. The following documentation formats may be considered to ensure ongoing compliance with specified requirements for Edible Cannabis Standards:

- Edible Cannabis Standards policy;
- Edible Cannabis Standards development procedures;
- Edible Cannabis Standards implementation procedures and work instructions;
- Edible Cannabis Standards monitoring procedures;

- Edible Cannabis Standards corrective and preventative action procedures;
- Edible Cannabis Standards verification schedule;
- Edible Cannabis Standards verification procedures;
- Edible Cannabis Standards validation schedule;
- Edible Cannabis Standards validation procedures;
- Edible Cannabis Standards training procedures.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Documentation requirements in relation to their items.

You may wish to visit the Edible Cannabis Standards Templates section of haccp.com for examples of Edible Cannabis Standards documentation, record and resource formats commonly applied within food safety and quality systems.

Edible Cannabis Standards Documentation Key Points

- Edible Cannabis Standards programs must be documented to meet relevant Regulatory, Industry, and Customer standards and requirements;
- All documented Edible Cannabis Standards program elements must be controlled to ensure compliance;
- Key documented Edible Cannabis Standards program elements should be available to your business team at all times to ensure they can facilitate required tasks;
- A properly documented Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly documented Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Implementation

To facilitate the application of the documentation.

Implementation

Implementation: Implementation is the application of documented food safety and quality system elements into the actual business operation.

The implementation of Edible Cannabis Standards within any food business requires genuine commitment from senior management, staff, and visitors to ensure the nominated goals of implementation are achievable on an ongoing basis. It is a step that requires significant planning and consideration of general and specific food business circumstances to ensure the outcomes of Edible Cannabis Standards do not negatively impact the safety and quality of the food items dispatched from the business.

Implementation of Edible Cannabis Standards must include a clear definition of responsibilities and authorities for all levels of participation by senior management, staff, and visitors to the site.

When implementing Edible Cannabis Standards within the food safety and quality system, you may wish to consider the following requirements before completion:

- Communication and display of the Edible Cannabis Standards policy;
- Completion of Verification and Validation of Edible Cannabis Standards development procedures;
- Availability of Edible Cannabis Standards implementation procedures and work instructions;
- Availability of Edible Cannabis Standards monitoring procedures and record templates where applicable;
- Availability of Edible Cannabis Standards corrective and preventative action procedures and record templates where applicable;
- Availability of the Edible Cannabis Standards verification schedule;
- Availability of Edible Cannabis Standards verification procedures;

- Availability of the Edible Cannabis Standards validation schedule;
- Availability of Edible Cannabis Standards validation procedures;
- Completion of Edible Cannabis Standards training procedures;
- Completion of product design and development requirements related to Edible Cannabis Standards;
- Completion of process design and development requirements related to Edible Cannabis Standards;
- Completion of training for team members who have responsibilities and involvement within Edible Cannabis Standards;
- Completion of competency approval for team members who have responsibilities and involvement within Edible Cannabis Standards.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Implementation requirements in relation to their items.

Premium Resources on haccp.com that support this element include the Signage EDICAN CBD Cannabis Storage Only, the Signage EDICAN Edible Cannabis Storage Only and the Signage EDICAN Medicinal Cannabis Storage Only.

Edible Cannabis Standards Implementation Key Points

- Edible Cannabis Standards programs must be implemented to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Your Edible Cannabis Standards program must be fully implemented as per relevant documented Policies, Procedures, and Work Instructions;
- The implementation of Edible Cannabis Standards requires a commitment to the provision of resources by the Senior Management of your business;
- A properly implemented Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly implemented Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Monitoring

To review, confirm and document evidence of the implementation against documented limits.

Monitoring

Monitoring: Monitoring is the act of reviewing and confirming measurable parameters of a defined process or product status.

Monitoring requirements within food industry sectors are generally identified against limits of acceptability defined within Edible Cannabis Standards plans, implementation procedures, and work instructions. Monitoring usually includes some element of record-keeping, which may be maintained manually or through digital systems. It is important to consider that advancements in technology have produced many systems and processes that are self-monitored or self-adjusted when variances are identified. Regardless of the system used, the goal of any monitoring activity is to provide sufficient evidence that any limit of acceptability has been met.

Traditional Edible Cannabis Standards monitoring requirements include manual recording and the application of corrective actions when the results of monitoring are found to be outside acceptable limits. Corrective Actions should also generally be strongly linked to the monitoring process where applied to ensure full traceability of the applied actions.

The following examples of monitoring activities and record formats may apply to Edible Cannabis Standards:

- Edible Cannabis Standards Monitoring Records: The monitoring activities for Edible Cannabis Standards Control Points, Critical Control Points, Quality Points, and Critical Quality Points are in their intent, designed to provide evidence of meeting the nominated Critical Limits.

- Routine monitoring of GMP Prerequisite Programs for all food manufacturing premises is recommended.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Monitoring requirements in relation to their items.

You may wish to visit the Edible Cannabis Standards Templates section of haccp.com for examples of Edible Cannabis Standards documentation, record, and resource formats commonly applied within food safety and quality systems.

Edible Cannabis Standards Monitoring Key Points

- Monitoring provides real-time confirmation and evidence that your risk-based FS&Q Controls are effectively implemented;
- Edible Cannabis Standards programs must be monitored to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Monitoring of Edible Cannabis Standards must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated monitoring records for Edible Cannabis Standards must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly monitored Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly monitored Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Corrective Action and Preventative Action

To apply "real time" interventions to documented monitoring limits.

Corrective Action

Corrective Action: Corrective action is mandatory action to be taken when a deviation from the Quality System occurs, particularly with a Critical Control Point.

Preventative Action: At any step in the process where a hazard has been identified, preventative action must be put into place to prevent re-occurrence.

Corrective Action and Preventative Action are implemented to ensure that any identified non-conformance issues are documented, investigated, and rectified within appropriate timeframes. Corrective action is any action applied to regain control over a product, process, policy, or procedure that has been identified as being non-conforming or outside nominated limits of acceptability. Preventative action is any action applied to prevent any identified non-conformance from reoccurring.

The outcomes of corrective and preventative actions should result in regained process control after effective application. Specified corrective actions are commonly linked to the Edible Cannabis Standards Plans and the food business certification process.

Below are examples of Corrective Action and Preventative Action that may follow an Edible Cannabis Standards non-conformance:

- Review of the Edible Cannabis Standards policy;
- Review of Edible Cannabis Standards development procedures;
- Review of Edible Cannabis Standards implementation procedures and work instructions;
- Review of Edible Cannabis Standards monitoring procedures;
- Review of Edible Cannabis Standards corrective and preventative action procedures;
- Review of the Edible Cannabis Standards verification schedule;
- Review of Edible Cannabis Standards verification procedures;
- Review of the Edible Cannabis Standards validation schedule;
- Review of Edible Cannabis Standards validation procedures; Review of Edible Cannabis Standards training

procedures;

- Re-training in Edible Cannabis Standards;
- Review of management review activities to include Edible Cannabis Standards as an agenda item;
- Initiation of product hold procedures where safety or quality may be compromised;
- Initiation of a product recall or product recall procedures where investigations show that there is a substantial safety or quality risk to the released product;
- Contacting stakeholders including customers regarding any confirmed or potential Edible Cannabis Standards concerns involving their product.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Corrective Action requirements in relation to their items.

You may wish to visit the Corrective Action and Preventative Action section of haccp.com for examples of best practice applications for this food safety and quality system element.

Edible Cannabis Standards Corrective Action and Preventative Action Key Points

- The implementation of Corrective Action and Preventative Action provides confidence that your FS&Q Program is effectively implemented and that FS&Q criteria are being met;
- Where deviations or variations are observed, Corrective Action and Preventative Action must be facilitated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Corrective Action and Preventative Action of Edible Cannabis Standards must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Records of Corrective Action and Preventative Action for Edible Cannabis Standards must be maintained per relevant documented Policies, Procedures, and Work Instructions;
- Proper application of Corrective Action and Preventative Action for your Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- Poor application of Corrective Action and Preventative Action for your Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Verification

To review and confirm documented monitoring and corrective actions against documented parameters.

Verification

Verification: The act of reviewing, inspecting, testing, checking, auditing, or otherwise establishing and documenting whether items, processes, services, or documents conform to specified requirements.

Verification is the detailed review of all food safety and quality system elements to confirm that they are effectively developed, documented, implemented, monitored, and reviewed. All food safety and quality system elements, including documented policies, procedures, training, Edible Cannabis Standards plans, and their operational applications must be verified on an ongoing scheduled basis. The verification process commonly includes a defined schedule for which verification activities are required, how often they are conducted, who is responsible, and detailed documented procedures for each nominated verification activity.

The general goal of an established verification process is to ensure any systemic non-conformance issues are identified and rectified within an appropriate timeframe. When non-conformance issues are identified through the verification process, Corrective Actions and Preventative Actions should be implemented to ensure they do not impact the effectiveness of the food safety and quality system.

The following examples of verification activities may apply to Edible Cannabis Standards:

- Review of the Edible Cannabis Standards policy;
- Review of Edible Cannabis Standards development procedures;

- Review of Edible Cannabis Standards implementation procedures and work instructions;
- Review of Edible Cannabis Standards monitoring procedures;
- Review of Edible Cannabis Standards monitoring records;
- Review of Edible Cannabis Standards corrective and preventative action procedures;
- Review of the Edible Cannabis Standards verification schedule;
- Review of Edible Cannabis Standards verification procedures;
- Review of the Edible Cannabis Standards validation schedule;
- Review of Edible Cannabis Standards validation procedures;
- Review of Edible Cannabis Standards training procedures;
- Review of Edible Cannabis Standards performance since the last review and historically;
- Analytical testing of product or process to ensure the effectiveness of Edible Cannabis Standards;
- Review of potency and homogeneity results against specification;
- Inclusion of Edible Cannabis Standards as an agenda item within the Management Review Process.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Verification requirements in relation to their items.

You may wish to visit the Verification Activities section of haccp.com for examples of best practice applications for this food safety and quality system element.

Edible Cannabis Standards Verification Key Points

- Your verification program provides evidence that your FS&Q Controls have worked;
- Edible Cannabis Standards programs must be verified to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The verification of Edible Cannabis Standards must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated verification records for Edible Cannabis Standards must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly verified Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly verified Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Validation

To confirm the documented monitoring or procedural limits.

Validation

Validation: The process of gathering evidence to provide a scientific basis for the documented act of demonstrating that a procedure, process, and activity will consistently lead to the expected results. It often includes the qualification of systems and equipment.

Validation is the provision of evidence to support the limits of control or acceptability for food safety or quality parameters nominated within systemic elements. Limits of control or acceptability are commonly included within documented food safety and quality systems elements such as procedures, Edible Cannabis Standards plans, and specifications.

Common sources of validation include regulatory and legislative standards, finished product specifications and customer requirements, industry codes of practice and guidelines, verified and validated research, historical product, and process control outcomes, and analytical testing.

The general goal of an established validation process is to ensure any inappropriate limits of control or acceptability are identified and rectified within an appropriate timeframe. When non-conformance issues are identified through the validation process, Corrective Actions and Preventative Actions should be implemented to ensure they do not

impact the effectiveness of the food safety and quality system.

Validation activities are commonly defined within the verification schedules and procedures of established food safety and quality management systems.

The following examples may apply to validation of the limits of control or acceptability for Edible Cannabis Standards:

- Confirmation of nominated food safety and food quality control limits for Edible Cannabis Products. These limits may apply to regulatory, industry, customer, or finished product specifications;
- Confirmation of analytical testing methods being used to confirm the effectiveness of Edible Cannabis Standards and ensure the accuracy of outcomes;
- Confirmation that potency and homogeneity testing methods are suitable for the product being manufactured.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Validation requirements in relation to their items.

You may wish to visit the Validation Activities section of haccp.com for examples of best practice applications for this food safety and quality system element.

Edible Cannabis Standards Validation Key Points

- Your validation program provides evidence that your FS&Q Controls will work;
- Edible Cannabis Standards programs must be validated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- The validation of Edible Cannabis Standards must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Nominated validation records and supporting documentation for Edible Cannabis Standards must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- A properly validated Edible Cannabis Standards program will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- A poorly validated Edible Cannabis Standards program will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.

Training, Competency and Resources

Skills, knowledge and competency requirements to facilitate development, documentation, implementation, monitoring, corrective action, verification and validation of every Food Safety and Quality System Element.

Skills and Knowledge

Skills and Knowledge: Skills and knowledge are attributes of human interactions commonly linked to competency within any specified job-related task.

Training and competency requirements for Edible Cannabis Standards must be ongoing, including regularly scheduled reviews to ensure the effectiveness of training and competency outcomes.

Team members who have defined responsibilities regarding Edible Cannabis Standards should have knowledge including:

- Basic Edible Cannabis Standards requirements;
- Positive outcomes of Edible Cannabis Standards;
- Negative outcomes of a lack of Edible Cannabis Standards;
- Current Edible Cannabis Standards procedures, methods, and techniques;
- General operational, corporate, and social awareness regarding Edible Cannabis Standards;
- Regulatory, industry, and customer requirements regarding Edible Cannabis Standards.

Team members who have defined responsibilities regarding Edible Cannabis Standards should have skills including:

- Competency in basic Edible Cannabis Standards;

- Effective application of current Edible Cannabis Standards procedures, methods, and techniques;
- The basic development, documentation, and implementation of Edible Cannabis Standards and Prerequisite Programs within the food industry sector.

Team members who have defined responsibilities regarding Edible Cannabis Standards should have access to resources including:

- Edible Cannabis Standards training;
- Edible Cannabis Standards associations and events;
- Regulatory standards, industry and customer information, and updates regarding Edible Cannabis Standards;
- Incidents within the food industry sector regarding Edible Cannabis Standards;
- Commitment to Edible Cannabis Standards by senior management;
- Suitably qualified food industry professionals with verified experience in Edible Cannabis Standards;
- Effective communication systems including email, internet, and phone through which Edible Cannabis Standards information can be sent and received within suitable timeframes.

If your food business supplies foodstuffs manufactured to a customer's specifications, it is important to consider any specific Edible Cannabis Standards Training, Competency, and Resources requirements in relation to their items.

You may wish to visit the Training, Competency, and Resources section of haccp.com for examples of best practice applications for this food safety and quality system element.

Edible Cannabis Standards Training, Skills, and Knowledge Key Points

- Your Training, Skills, and Knowledge program ensures all participating personnel, visitors, and contractors have the required skills and knowledge to effectively facilitate the requirements of your FS&Q Program;
- Training, Skills, and Knowledge programs for Edible Cannabis Standards must be facilitated to meet relevant Regulatory, Industry, and Customer standards and requirements;
- Training, Skills, and Knowledge programs for Edible Cannabis Standards must be facilitated as per relevant documented Policies, Procedures, and Work Instructions;
- Training, Skills, and Knowledge records for Edible Cannabis Standards must be maintained as per relevant documented Policies, Procedures, and Work Instructions;
- Properly applied Training, Skills, and Knowledge programs for Edible Cannabis Standards will provide a strong framework for your business to maintain compliance with relevant Regulatory, Industry, and Customer standards and requirements;
- Poorly applied Training, Skills, and Knowledge programs for Edible Cannabis Standards will not fully support your business and may contribute to significant non-compliance against Regulatory, Industry, and Customer standards and requirements.



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