Guideline

Preparation/Processing Fruit, Vegetables, Potatoes

Version: 01.01.2026

Contents

Note: *The guideline Preparation/Processing Fruit, Vegetables, Potatoes is written in German and translated into English. In case of discrepancies between the translation and the German version, the German original is valid.*

1 Fundamentals

You will find basic information on the QS scheme, such as organisation, terms of participation, use of the QS certification mark and sanction procedures in the **Guideline General Regulations**.

1.1 Scope

The following requirements apply to businesses involved in the preparation and processing of fruit, vegetables and potatoes (with the exception of food retail branches). These requirements refer to all processes listed in this guideline that take place at the production location. The trade with prepared/processed goods is also part of the scope of this guideline.

If companies with an approval for the stage Preparation/Processing Fruit, Vegetables, Potatoes also process meat and meat products and these goods are to be marketed as QS produce, they need to be certified as well according to the guideline "Processing Meat and Meat Products". A certification for the processing of meat and meat products is not necessary if raw materials are only portioned and therefore directly used as ingredients.

The production/preparation of products with increased risk potential such as germ buds and sprouts also falls under the scope of this guideline. The exception to this is germ buds and sprouts which grow in a greenhouse on substrate or mat of fibers and their roots and/or seeds which are not consumed. Companies that produce sprouts and/or seedlings must also be certified according to the guideline QS-GAP.

1.2 Responsibilities

The scheme participant is responsible for ensuring:

- Compliance with requirements
- Complete and correct documentation
- Completion of self-assessments
- Adequate and timely implementation of corrective actions
- Correct use of the QS certification mark and product labelling

Scheme participants must comply at all times with the requirements of the QS scheme and always be in a position to demonstrate compliance with said QS requirements. Scheme participants must ensure compliance not only with the requirements of this guideline and all other applicable QS requirements (e.g. General Regulations, Guideline Certification, Guideline Residue Monitoring) but also with the applicable legal provisions both within the country in which the QS produce is produced as well as the country in which they will be marketed by the scheme participant.

2 General requirements

2.1 General scheme requirements

2.1.1 General business data

A company overview containing the following master data must be created:

- Company name
- Address of the main company (incl. QS-ID) and all its locations
- Type of company and location number
- Current address
- Contact details of legal representatives incl. phone numbers and email addresses
- Details on crisis management (name of crisis manager, etc.)
- Working hours

The master data must always be kept up to date in the QS database by the scheme participant.

Furthermore, the following information must be included in the company overview:

- Information on existing quality management and audit systems (e.g. ISO 9001, IFS, BRC)
- Information on commissioned laboratories (current address, phone and fax numbers, email address, area of analysis)

Where rooms are shared by several companies, all rooms belonging to the company must be identified in a business plan.

Company overview

Further document: Sample form "Business Data"

2.1.2 Use of the QS certification mark

Scheme participants are entitled to use the QS certification mark once they have been permitted to do so by QS (via QS scheme agreement). The QS certification mark may only be used in accordance with the **Style Guide**.

Scheme participants may only deliver products with the QS certification mark on the label or outer packaging if they themselves and the location of the recipient/reseller eligible to deliver in the QS database. Produce labelled with the QS certification mark must be identified on the delivery notes in line with requirement 5.2.5 [K.O.] Labelling of marketed QS produce.

In justified individual cases, nonconformity may be allowed if it can be expected that the reseller will no longer actively advertise and/or market the products as QS produce in the course of its business transactions and when dealing with its own recipients. In the accompanying documents, the products must not be described as QS produce, or it must be clearly visible from the accompanying documents that the reseller no longer has permission to actively advertise the products as QS produce in the course of its business transactions and in contact with its recipients.

Goods from producers with a GLOBALG.A.P. Option 2 certificate or with a GLOBALG.A.P. Option 1 Multisite with QMS certificate may only be labelled with the QS certification mark, if the producers are authorized for the usage. Producers that are not authorized for the usage of the QS certification mark on their products are marked as such in the QS database.

Further documents:

- *Explanatory notes Delimitation of the scope of application for composite products*
- *Explanatory notes Use of the QS certification mark for composite products*

2.1.3 Incident and crisis management

QS has developed a comprehensive crisis management system that actively supports scheme participants in the event of an incident or crisis. The scheme participants must inform QS immediately and – where a legal obligation exists – the competent authorities about critical incidents and public product recalls relevant to the QS scheme.

Critical incidents are scheme-relevant occurrences that pose or could pose a risk to humans, animals, the environment, assets or the QS scheme as a whole.

Scheme participants must inform QS, in particular if:

- Nonconformities occur in goods procurement, production or marketing that might pose a risk to food safety
- Preliminary proceedings are initiated due to violation of regulations to secure food safety
- Investigations are carried out by the media, there are critical reports in the media, or public protests are held on issues of food safety

Each scheme participant must maintain a documentation structure for reporting incidents, for example the QS paper of incident, to enable them to pass on any required information in the appropriate format if an incident occurs. Moreover, all scheme participants must name a crisis manager, who is reachable at all times. The name of the crisis manager must be entered in the QS database.

A procedure must be defined and introduced for conduct in the event of incidents or crises and verified at regular intervals, but at least once a year (approx. every 12 months). It must include the following points:

- Creation of a crisis team
- Emergency call list
- Procedure for product recall and return
- Communication plan
- Customer information

Paper of incident, incident and crisis management procedure

2.1.4 Handling of documents

A procedure that regulates the archiving and recording of documents must be on hand and applied at the company. All relevant records must be kept in detail and without any gaps.

Unless longer retention periods are stipulated by law, documents and records of the internal checks made within the scope of the self-assessment system must be kept for at least two years in line with the duty of diligence and obligation to produce proof to third parties.

2.1.5 Company premises and access regulations

All buildings and operating facilities must be protected from unauthorized access and, where possible, be kept closed. Access regulations must be in place. Operating rooms in which food is produced or stored may not be accessible to unauthorized persons.

External visitors may only have access to the operating rooms if accompanied by or in agreement with an authorized person. With the exception of drivers within the scope of loading activities in the designated loading zone, all external visitors must receive instructions prior to entering production areas.

If the business premises are entered by external vehicles, e.g. delivery or disposal vehicles, this must be accounted for in the risk assessment.

Access regulations

2.1.6 Food safety culture

An appropriate food safety culture is established by the food business operator in accordance with **Reg (EU) 2021/382**. Responsibilities and accountabilities for all processes related to food safety are clearly defined. The implementation and timeliness of the food safety culture is to be ensured by the food business operator. The essential principles required for that purpose are part of the QS participation and certification.

Further document: Explanatory notes of the food safety culture

2.1.7 Commissioning of logistics companies/subcontractors

Companies commissioned with the following logistics processes for QS goods must have the QS eligibility of delivery:

Process	The commissioned logistics company is eligible to deliver QS-certified goods for one of the following production scopes
Transport of QS goods between QS scheme participants at the stages Wholesale/Logistics and/or Preparation/Processing	• Wholesale • Logistics; Certification schemes QS, IFS, BRC • Convenience • Preparation/Processing • Food retail warehouse
Transport of unpacked, loose QS potatoes and QS onions as bulk goods /goods in bulk packs	In addition to the production scopes listed above, the following are possible: • Logistics; Certification scheme GMP+ • Road transport (feed)
Storage and, if necessary, picking of QS goods	• Wholesale • Logistics; Certification schemes QS, IFS, BRC • Convenience • Preparation/Processing • Food retail warehouse

The customer of the logistics company is responsible for fulfilling the requirements for the eligibility of delivery. They must inform the logistics company if the goods are QS goods (e.g. via EDI).

Exemption for sporadic commissioning

In the case of sporadic commissioning of logistics companies for the transport of QS goods, deviations from the above-mentioned requirement for QS eligibility of delivery are possible.

In this case, the customer must oblige the logistics company to comply with the QS requirements (⇒ Guideline Logistics, chapter 2.3, 3, 5) as part of the contract. The implementation of the requirements by the contracted logistics company must be ensured by means of evidence and checked on a random basis as part of the customers self-monitoring.

In addition, the client must require the commissioned logistics company to allow inspections by the customers certification body and/or by QS in individual cases.

Process for checking QS eligibility of delivery, when using the exemption for sporadic commissioning of logistics companies: evidence of implementation of the QS requirements, self-assessment checklist, letter of commitment to enable inspections

2.2 Self-assessment

2.2.1 [K.O.] Conducting self-assessments

Compliance with QS requirements must be checked. Self-assessments must be conducted on a regular basis; these must be documented using a checklist at least once a year. Existing assessment and documentation systems which guarantee that the QS requirements are fulfilled can also be used.

The internal checks can be documented on the basis of automatic registration processes (e.g. automatic temperature records) as well as by means of manual records (e.g. incoming goods inspection).

External companies with the corresponding qualifications may also be commissioned to conduct the self-assessment.

Self-assessment records, checklists

Further documents: Checklists Preparation/Processing

2.2.2 Completion of corrective actions in the case of nonconformity

Nonconformities that are detected during a self-assessment must be resolved within a specified period of time appropriate to the circumstances.

2.3 HACCP

2.3.1 [K.O.] HACCP concept

To ensure food safety, the company must develop, apply and maintain a hazard control system that is kept up to date in accordance with HACCP principles (**REG (EC) No. 852/2004**).

Basis and prerequisite for the implementation of a HACCP system are basic hygiene measures, including the codes of practice for good hygiene practice (GHP) and good manufacturing practice (GMP).

The HACCP-concept must contain all relevant processes and hazards (e.g. thawing and tempering of goods, glass breakage at canning etc.). The structure of the HACCP concept must be understandable by third parties.

HACCP concept

2.3.2 HACCP team

The highest level of management must nominate a HACCP team to introduce and maintain the HACCP concept. The HACCP team must be documented in a written form. Evidence must be provided of the HACCP team having adequate experience in each area of the company. If required, the HACCP team must be trained. In this case, records of the training must be kept.

If there are multiple HACCP teams, a coordinator must be appointed who is responsible for the HACCP teams working systematically.

2.3.3 Product description

A complete product/article group description must be compiled. The product descriptions must contain all relevant information used to assess the hazards and determine the critical control points. These The product description must include the following items:

- Composition of the product/the article group
- Physical and chemical structure
- Antimicrobial/bacteriostatic treatment
- Packaging
- Shelf life
- Storage conditions

The intended purpose of the product/article group must be defined.

2.3.4 Flow chart

A systematic flow chart must be created containing all the operating processes and product groups.

2.3.5 Hazard analysis

The HACCP concept is based on the determination of hazards that must be avoided, eliminated or reduced to an acceptable level.

2.3.6 Critical control points (CCP)

Critical control points (CCP) must be determined at the relevant process stage if control is required in order to avoid, eliminate or reduce any hazards to an acceptable level.

2.3.7 Limit values for CCP

If CCPs have been determined, limit values for the critical control points must be set, which are used to distinguish between acceptable and unacceptable values with regard to the avoidance, elimination or reduction of calculated risks.

2.3.8 Monitoring and verification of limit values for CCP

Procedures for monitoring and verifying critical control points must be defined and implemented. These procedures must be applied regularly.

2.3.9 Corrective actions for CCP

If CCPs have been determined, corrective actions must be determined in the event that monitoring shows that a critical control point exceeds the set limit value.

2.3.10 Responsibilities

Responsibilities must be clearly defined by means of an organizational chart.

2.3.11 Records

Records that are commensurate to the type and size of the company must be kept providing evidence that the corrective actions listed in the HACCP principles are applied.

2.3.12 HACCP verification

Implementation of the HACCP concept must be reviewed once a year (verification). If changes are made to a product, a production process, a processing method, or a storage or marketing stage that are relevance to the HACCP concept, the company must review the HACCP concept and adjust it as necessary.

Self-assessment records, checklists

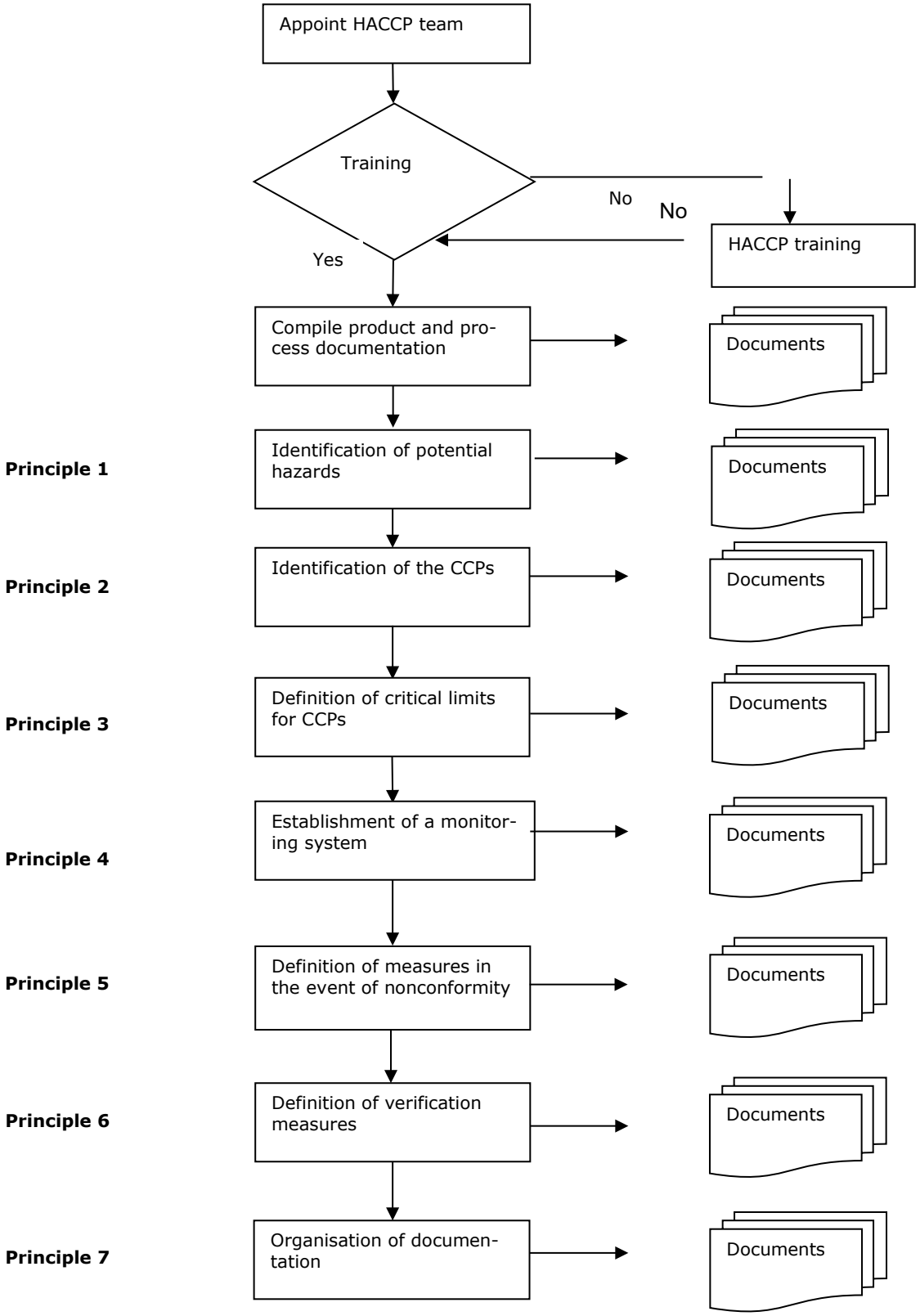

Figure 1: Compilation of an HACCP study

2.4 Good manufacturing and hygiene practice

2.4.1 Water quality

Drinking water must be provided in suitable quantities and may not pose any risk of contamination. A tapping point plan must be available within the company.

Water, irrespective of origin or state, which has

- direct contact with unprocessed products (e.g.: washing water/process water) or
- direct or indirect contact with processed products (e.g.: water that is used to clean objects and equipment that come into contact with the processed products)

must be sampled in accordance with a risk-based plan (at least once per year (approx. every 12 months)) to test for the following microbiological parameters:

- *Escherichia coli (E. coli)*: 0 CFU/100 ml
- Enterococci: 0 CFU/100 ml

The water sample must be taken directly at the tapping point without removing any attached devices and inserts, without prior disinfection and without draining water. Sampling must be carried out by a qualified sampler (this may also be a trained employee).

Only an accredited and officially approved laboratory may be commissioned to analyze the water samples.

If the above limits are exceeded, measures to prevent product contamination must be defined and documented immediately.

Process/washing water must be replaced and/or prepared at regular intervals based on a risk assessment. The risk of contamination must be kept as low as possible.

For the water used in the final wash cycle or used for the application of post-harvest treatments, the above-mentioned requirements for carrying out microbiological water analyses apply.

The requirement to perform water analyses is only necessary when handling products that are suitable for raw consumption.

Water quality control plan, tapping point plan

Further document: Explanation note of the "water quality" requirement in food production

2.4.2 Cleaning and disinfection

Cleaning and disinfection plans must be in place and their implementation documented. These plans include:

- Responsibilities
- Products used and their instructions for use
- Areas and instruments (incl. cutting tools like knives) requiring cleaning or disinfection
- Cleaning intervals
- Record obligations
- Hazard symbols (if necessary)

The implementation of cleaning and disinfection plans must be checked annually (approx. every 12 months). The results must be documented.

The cleaning staff is informed of the proper use of the designated cleaning product (per the instructions for use/cleaning plan).

Cleaning and disinfection plan, results of implementation checks, operational disinfectant lists

Further documents:

- *Sample form "Registry of hazardous substances"*
- *Sample form "Hygiene Checklist"*

2.4.3 Pest control

It must be ensured that a high level of cleanliness and hygiene is maintained in all work/storage areas in order to prevent the attraction of pests and vermin. Both in the operating rooms and in outdoor areas, precautionary measures must be taken to repel pests that adversely affect food. Appropriate corrective actions for pest control must be introduced.

Within the implementation of pest monitoring and control, the procedure and qualifications of the user must comply with the legal requirements of the respective country as well as the particular product specifications. Monitoring and bait points must be controlled at least once a month by qualified personnel provided no other control intervals were determined based on a risk assessment. In order to guarantee the safety of the food as well as the safety of the employees, suitable pest control methods and pesticides must be used. Pest control procedures must not jeopardise the safety of the produced or stored products.

Permanent baiting (without infestation) using rodenticides (anticoagulants) is only permissible in exceptional cases if it is carried out strategically by a pest controller or professional operative (per the German **Hazardous Substances Ordinance** Annex I Number 4 Paragraph 4.4). A professional operative or pest controller must provide evidence of and document the conditions for each exceptional case individually via an annual risk analysis and risk assessment. Compliance with the measures for risk minimization determined in the analysis must be guaranteed. In this case, only bait permitted for this purpose may be used and the bait points must be controlled at least once per month. Differing legal provisions may apply in other countries and must be complied with accordingly.

The documentation must contain at least the following information:

- Information on products used for pest prevention and control
- Date of treatment and specification of the applied quantities
- Proof that the employees involved in pest control are suitably qualified (the expertise required for the respective activity)
- Control point plans showing the positioning of monitoring and bait stations (including temporary control points)
- Records of pests found (findings)
- Corrective action plans in case of pest infestation

Documentation on pest prevention and control, pest control plan, evidence of qualifications (if applicable), contracts with specialist companies (if applicable)

Further document: IFS Pest Control Guideline

2.4.4 Handling of deviating products

The process of dealing with nonconforming goods, pieces of equipment and packaging materials in the company must be regulated in written form and implemented in line with the defined stipulations. In particular, rules must be for dealing with fallen unpackaged products or products which do not meet specifications due to production defects must be documented. A responsible employee must decide on the subsequent use of the product (release, post-processing/secondary treatment, blocking, rejection/disposal).

Goods with expired best-before date (BBD)/use-by date must be stored separately from the other goods. These goods must be handled in line with internal guidelines and, where necessary, disposed of in the proper manner.

Documentation regarding the handling of deviating products

2.4.5 Monitoring of test equipment

When calibrating and monitoring the functionality of the instruments and devices used as test equipment (e.g. thermometers), the intervals stipulated by the manufacturers must be complied with. If a manufacturer has not made any stipulations in this regard, the test equipment must be calibrated or checked in line with the perceived estimation of the risk but at least once a year (approx. every 12 months).

The measuring methodology of the various test devices must be taken into consideration. The measuring methodology of the various test devices must be taken into consideration. The results must be documented (incl. nonconformities, corrective actions) and clearly assigned. The measuring precision, reliability and functionality of operational test equipment must be guaranteed.

If a calibration is not possible for certain measuring devices, these measuring devices must be serviced and maintained accordingly.

If required by law, any scales that are in use must be calibrated.

Applicable documents are the German **Act concerning the placement and provision of measuring instruments on the market, their use and verification, and also on pre-packages.**

Evidence of adjustment and monitoring of test equipment, documentation of calibration/test

2.4.6 [K.O.] Risk of contamination

Contamination must be avoided. This includes biological, chemical and physical hazards as well as nauseating influences. For this purpose, a risk-based management needs to be carried out, in which diverse sources of contamination like food waste or lubricants need to be taken into account. All measures necessary to avoid contamination must be identified and documented.

The penetration of foreign matter into food must also be avoided. The hazards and possible entry sources of foreign matter must be identified and assessed on the basis of a risk analysis. Appropriate precautionary measures must be taken and procedures established to minimise this risk.

The responsible employees must be aware of and observe the detection limits and application regulations for the equipment that is used. Regular internal checks must be performed to assess the success of detection. These checks must be documented.

Cross-contamination due to other products must be avoided. In particular, contamination of other products must be avoided in the preparation/processing of products that contain allergenic substances. To this end, appropriate stipulations and work instructions must be in place in the company. The responsible employees must be adequately trained.

Documentation of contamination management

Further document: IFS Guideline for an effective foreign body management

2.4.7 Recipes

Recipes are to be compiled for all products made in-house. The recipes must be known to relevant employees and must be readily accessible. The specified ingredients must be in line with the recipe in question.

A procedure must be defined and applied for the release and the verification of the recipes as well as for the communication of process-related points that need to be taken into consideration when there are changes to recipes.

Recipes

2.4.8 Specifications

Specifications must be documented and complied with for all prepared/processed products as well as purchased products.

Specifications

2.4.9 Access to preparation and processing rooms

Before entering the preparation and processing rooms for the first time, all employees must be instructed with regard to rules of conduct. All visitors must also be suitably instructed before entering the preparation and processing rooms for the first time. Where necessary, visitors must be given suitable protective clothing and headgear. Company specific access regulations must be defined in writing and adhered to.

Access rules preparation/processing rooms

2.4.10 Containers for storage and transport

Containers in which goods are stored and transported need to be intact, clean and suitable for food production.

2.5 Technical/structural condition

Note: *The following requirement is described in Chapter 2 (General Requirements) on a superordinate basis. The requirement is evaluated on a more detailed level in the process-specific chapters: storage, cold storage rooms, frozen storage rooms, requirements for the preparation process, requirements for the freezing process, requirements for the heating process, requirements for canning production, requirements for sprout production, packaging/redistribution, incoming and outgoing goods and returns management.*

Operating facilities involved with the handling of food and rooms in which food products are stored, prepared, treated or processed must be clean and well maintained in accordance with **REG (EC) No. 852/2004** Annex II. They must be constructed, designed and built so as to enable sufficient cleaning and/or disinfection, avoid contamination or reduce it to a minimum.

The following requirements must be fulfilled:

- All floor coverings must be kept in proper condition and must be easy to clean and, if required, easy to disinfect.
- Ceilings (or in the case of no ceilings, interior roof) and ceiling structures must be built and processed so that any accumulation of dirt is avoided and that condensate, undesired mould as well as the peeling away of material particles is reduced to an absolute minimum.
- Windows and other openings must be constructed in a manner that avoids the accumulation of dirt. Openings extending outward require insect mesh that can be easily removed for cleaning.
- Doors must be easily cleaned, and if required, disinfected. They must have water-repellent and smooth surfaces.
- Surfaces (including equipment surfaces) on areas in which food materials are handled, and in particular surfaces that come into contact with food, must be kept in an unobjectionable condition and must be easy to clean and to disinfect. They must be made of smooth, abrasion-proof, corrosion-proof, non-toxic material.

Operating rooms and facilities must be subject to maintenance and repair in line with predefined written instructions. A maintenance plan must be created and implemented for all operating rooms, facilities and equipment from which respective maintenance measures can be taken in order to ensure that work can be performed in a hygienic and unobjectionable manner. Maintenance works may not pose any hazards to food safety.

The maintenance plan must include the following elements (if available):

- Operating areas and operating rooms
- Facilities and transport systems (if available)
- Conformity of the materials and lubricants used
- Responsible employees (own employees and external companies)
- Frequency

Fulfilment of these requirements must be verified based on records documenting maintenance works.

Maintenance plan, documentation of maintenance works

2.6 Room, equipment and plant hygiene

Note: *The following requirement is described in Chapter 2 (General Requirements) on a superordinate basis. The requirement is evaluated on a more detailed level in the process-specific chapters: storage, cold storage rooms, frozen storage rooms, requirements for the preparation process, requirements for the freezing process, requirements for the heating process, requirements for canning production, requirements for sprout production, packaging/redistribution, incoming and outgoing goods and returns management.*

All rooms, operating facilities and machines in which foods are stored, prepared, treated or processed must be in a clean, hygienic and dirt-free condition. Water retention in clearance rooms and major corrosion on machines and facilities must be avoided. Equipment must be functional and hygienically sound. Transport containers and vehicles must be hygienically sound.

The rooms must be cleaned regularly according to the cleaning plan. This applies especially to floor coverings. The cleaning frequency must be aligned with work patterns/new usage of operating rooms/storage rooms.

Cleaning and disinfection plans

2.7 Ground clearance

Note: *The following requirement is described in Chapter 2 (General Requirements) on a superordinate basis. The requirement is evaluated on a more detailed level in the process-specific chapters: storage, cold storage rooms, frozen storage rooms, requirements for the preparation process, requirements for the freezing process, requirements for the heating process, requirements for canning production, requirements for sprout production, packaging/redistribution, incoming and outgoing goods and returns management.*

A system must be implemented and enforced whereby products and containers containing or intended to contain food must not be placed directly on the floor. The goods must be stored and transported in such a way that there is no risk of contamination.

The following are excluded:

- Automated storage systems that are limited by physical barriers and from which containers are picked mechanically from above. Storage areas are not accessed except for cleaning and maintenance purposes, are in a hygienically sound state and do not pose a risk of contaminating produce.
- Industrial containers (e.g. BIG boxes), that are designed to stand on runners or legs off the floor. If these containers are stacked, contamination of the food must be prevented via company regulations.

2.8 Staff hygiene

2.8.1 General rules of conduct

Documented guidelines must be present concerning staff hygiene, which have been communicated to staff during training sessions. At least the following points must be taken into consideration:

- Hand washing and disinfecting
- Eating, drinking, smoking and chewing gum
- Conduct in the event of skin injuries (cuts, grazes)
- Fingernails, jewelry, piercings and watches
- Hair, beards

Smoking while working and inside work rooms is forbidden and only permitted in the designated places and rooms. Rooms must be fitted with clearly visible signage (no smoking).

Each employee must be provided with a sufficient quantity of appropriate protective clothing and headgear where required.

There must be sufficient hand hygiene stations available. If disinfectants are provided, signage with instructions on how to use the disinfectant must be displayed.

Hand hygiene facilities in the production area must at least fulfil the following requirements:

- Running cold and hot water
- Liquid soap from dispensers (not bottles, for example)
- Disinfectants from dispensers (in preparation and processing areas)
- Signage with instructions on how to use the disinfectant (in preparation and processing areas)
- Contact-free fittings (in preparation and processing areas)
- Appropriate options for hand drying (devices for hygienic hand drying)

If the company policy includes a provision for coat hooks to be fitted, they must be properly and sensibly positioned.

Staff hygiene provisions must be observed and applied by all concerned (employees, service providers, etc.). There must be a procedure for regularly checking the consistent implementation of staff hygiene in the company. The results must be evaluated and, if necessary, corrective actions for optimization are initiated. Staff whose activities directly affect product safety must have the necessary experience/training.

Rules of conduct, procedure for implementation and monitoring of staff hygiene

2.8.2 Staff rooms and sanitary facilities

Suitable changing rooms must be provided for employees and external visitors. Outdoor and protective clothing must be kept separate where required. Staff rooms and sanitary facilities must be kept clean and in good order and only used for their designated purpose.

The rooms must be cleaned regularly. Cleaning must be documented.

Cleaning documentation

2.8.3 Hygiene sluice

Hands and shoes must be cleaned and disinfected thoroughly before entering the preparation and processing area. On basis of a hazard analysis the cleaning and disinfection of footwear can be dispensed.

The effectiveness of cleaning and disinfection of hands is to be examined randomly risk-based with microbiological tests of the surfaces of employee’s hands at least every year (approx. every 12 months).

Results microbiological tests

2.9 Training of staff

2.9.1 [K.O.] Hygiene training/Protection against Infection Act

Based on **REG (EC) No. 852/2004**, hygiene training courses are to be held in the company every year (approx. every 12 months). Documented training programs must be defined in line with the product and the employees' field of activity.

The training plan contains each rule of conduct (⇒ 2.8.1 General rules of conduct) in addition to:

- Contents
- Training intervals
- Participants and instructor
- Languages

If required by the legislator, employees with activities in preparation and processing rooms must be trained with regard to the provisions of the **Infection Protection Act** (IfSG). This training must be documented. In the QS scheme, the training must be conducted at least once a year (approximately every 12 months).

Before working in the food sector for the first time, staff must also take part in a health instruction session (employees who are in possession of a health certificate fulfil this requirement), if this is required by the legislator. The first time an employee works in this sector, the certificate from the health authorities or an authorized physician may be no older than three months.

Training program and training proof, instruction/certificate from the health authorities

2.9.2 Information on the QS scheme

All responsible employees must be informed of the basic principles of the QS scheme and the relevant requirements contained in the QS scheme manual that fall within their scope of work. Responsible employees must be informed regarding checks that are carried out on the proper use of the QS certification mark on produce.

2.9.3 General training

Responsible employees must participate in internal/external training on the following topics (among others) once per year, and participation must be recorded in company documentation:

- Produce knowledge and labelling
- Quality standards/marketing standards
- Disease and pest infestation of products
- Transport and packaging
- Safety at work

All employees must be trained in their responsibilities when taking up the role and as an annual refresher. Training must be aligned with the further development and responsibilities of the employees being trained. The name of the instructor, the date of the training, the participants, the topic and any training material used and/or distributed must be recorded.

Training program and evidence of training

2.10 Cold storage rooms

2.10.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

2.10.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

Mould formation in cold storage rooms must be avoided. If necessary, steps must be introduced to re-move the mould. It should also be ensured that frost formation is kept to a minimum. The cooling systems must be regularly maintained and kept in a hygienically sound condition.

2.10.3 Ground clearance

⇒ 2.7 Ground clearance

Primary products may be stored directly on the ground or on the appropriate devices if the floors or material on which they are stored are in a clean and flawlessly hygienic condition.

2.10.4 Stock management

A plausible and comprehensible stock management plan must be documented and implemented (e.g. FIFO/FEFO). It must be quick and easy to identify which goods were stored and when. Each product or packaging unit that has been put into storage or temporarily set down must be clearly identifiable. The storage conditions may not have any negative effects on the product properties.

A procedure must also be specified and known to the relevant members of staff that specifies the corrective actions and steps in the event of a facility malfunction.

The following information must be documented in a comprehensible manner based on company records:

- Date of delivery
- Warehouse/Box/Crate designation
- Supplier
- Variety
- Quantity

It must be ensured that goods are stored in batches. The batches must be labelled. The storage company defines what is meant by a "batch". Varieties may not be mixed.

🗐 Documentation on storage, storage management process

2.10.5 [K.O.] Temperature recording and monitoring

Temperature recording and monitoring must be such that the requirements for the product temperature (⇒ 5.1.8 [K.O.] Product temperature) are met. The product with the lowest temperature level determines the temperature for the entire storage room.

The temperatures of all cooling equipment must be registered and documented. Furthermore, a procedure in the event of a technical defect must be documented and known.

Potatoes
Separate records on climate management and climate development in the warehouse are necessary for potatoes. They must include:

- Information on the changes in the temperature of the outside air
- Indoor air temperatures
- Temperatures of tubers
- Ventilation hours
- Mode of operation of the ventilation equipment

🗐 Temperature records, climate records, temperature checklist, documentation of corrective actions in case of nonconformity

2.10.6 [K.O.] Best-before date/use-by date

Compliance with the best before date or use-by date must be observed in all rooms. Regular inspection of the best-before date/use-by date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according to internal guidelines. Goods with an expired use-by date may not be distributed. A responsible employee must be named for this purpose.

2.10.7 Prerequisite for maintaining quality

Specific climatic conditions, such as temperature, humidity and other guidelines in accordance with the specifications for stored products, must be complied with in the rooms or facilities where products or pieces of equipment are stored (in particular the rapid drying of moist tubers, wound healing etc. in the case of potatoes). To avoid the occurrence of condensate, the changes in temperature need to be taken into account.

During storage, the state of the goods and the defined storage conditions must be regularly monitored and documented.

Potatoes
When cold air is used in the storage of potatoes, the variety-specific differences in the formation of reducing sugars must be taken into account.

🗐 Documentation on the quality of the goods and the storage conditions

2.11 Frozen storage rooms

2.11.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

2.11.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

Frozen storage rooms must be in a clean and hygienically sound condition. There is no contamination. It must also be ensured that frosting is kept to a minimum. A documented cleaning plan must be in place for the cooling systems. Proof of cleaning must be documented.

2.11.3 Ground clearance

⇒ 2.7 Ground clearance

2.11.4 Stock management

⇒ 2.10.4 Stock management

2.11.5 [K.O.] Temperature recording and monitoring

Temperature recording and monitoring must be such that the requirements for the product temperature (⇒ [K.O.] 5.1.8 Product temperature) are met. The product with the lowest temperature level determines the temperature for the entire storage room.

The temperature of all cooling equipment must be registered and documented. Furthermore, a procedure to be followed in case of a technical fault must be laid down and known to the employees.

Temperature records, climate records, temperature checklist, documentation of corrective actions in case of nonconformity

2.11.6 [K.O.] Best-before date

It must be ensured that the best-before date is observed in all rooms. Regular inspection of the best-before date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according to the internal guidelines. A responsible employee must be named for this purpose.

2.12 Storage

2.12.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

2.12.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

2.12.3 Ground clearance

⇒ 2.7 Ground clearance

Primary products may be stored directly on the ground or on the appropriate devices if the floors or material on which they are stored are in a clean and flawlessly hygienic condition.

2.12.4 Stock management

⇒ 2.10.4 Stock management

2.12.5 Best-before date

It must be ensured that the best-before date is observed in all rooms. Regular inspection of the best-before date must be guaranteed for this purpose. Goods with an expired best-before date must be handled according to the internal guidelines. A responsible employee must be named for this purpose.

2.12.6 Prerequisite for maintaining quality

⇒ 2.10.7 Prerequisite for maintaining quality

3 Requirements for preparation and processing

3.1 General process requirements

3.1.1 Best-before date/use-by date

When assigning a best-before date/use-by date, it must be guaranteed that the product possesses the properties that are typical for the product at the end of the best-before date/use-by date.

Validated microbiological data must be available for assignment of the declared best-before date/use-by date. Parallel to this, a sensory assessment of the products must be conducted. A process must be implemented that provides for regular inspection of the best-before date/use-by date.

Soup greens/soup vegetables
Based on an appropriate risk analysis, the validated microbiological data for assignment of the declared best-before date/use-by date may be dispensed for soup greens/soup vegetables.

Procedure for checking the best-before date/use-by date

3.1.2 [K.O.] Microbiological testing in the operational facility

In order to guarantee an appropriate standard of hygiene, cleaning and if necessary, measures of disinfection must be carried out in the company.

- Requirements in case of an exclusive cleaning/flushing of the operational facility

  If an exclusive cleaning/flushing of the plant is carried out, an optical cleaning control must take place. The result must be documented.

- Requirements in case of a disinfection of the operational facility

  If a disinfection of the plant is carried out, microbiological testing on surfaces must be carried out regularly in the preparation and processing rooms in order to monitor disinfection measures. If the results are unsatisfactory, measures must be taken in order to reduce surface germ counts (e.g. training/instruction, testing of disinfectors and agents, maintenance of disinfectors, monitoring of the disinfection process). The responsible cleaning staff must be informed of striking tests as quickly as possible.

  Sampling has to take place at all relevant food contact points (e.g. equipment, systems, conveyor belts, knives, palms of hands) and on other surfaces (e.g. tables, door handles, switches, containers, boxes). These sampling points must be determined on the basis of a risk analysis and documented in a sampling plan. The defined sampling points are to be sampled individually on an alternating basis.

  The sampling plan must ensure that all defined spots in the company are sampled over a specified period. In order to check the effectiveness of disinfection activities, samples must be taken during production months at least monthly.

  In addition to these minimum requirements, the sampling frequency is to be chosen using a risk-based approach and adapted to (where applicable increased to take account of):

  – Size of company
  – Existing systems (places where washed products are handled)
  – Microbiological sensitivity of the produced goods
  – Results of previous tests

If required by the legislator, samples for the processing areas and the equipment must be tested for *Listeria monocytogenes* within the sampling plan. Sampling and analyzing must be performed by qualified personnel using suitable methods. If residual effects of disinfections are expected, drawing equipment (contact samples) with disinhibitors must be used.

Sampling plans for the operational facility, evaluations, results, documentation of measures

3.1.3 [K.O.] Microbiological monitoring of the products

Sampling plans must be drawn up for the microbiological tests. In-house self-assessment processes must ensure compliance with the sampling plans and documentation of microbiological status. Proof of the microbiological quality of the products must be provided.

The microbiological analyses of the products must be performed based on the risk analysis. At least, legal requirements regarding the microbiological criteria for foods must be met according to **Regulation (EC) No. 2073/2005**. The currently valid version of the standard applies.

In addition, it must be ensured that products comply with the microbiological criteria during their shelf life and that specific sensory characteristics are presented. With regard to the sampling for this analysis, one of the following alternatives is to be selected:

Alternative 1: the products (each component individually or each basic mixture based on the different mixing ratios) are to be tested for the parameters at least once a quarter during the production months.

Alternative 2: risk-based product groups must be formed. The product groups are to be tested for the parameters at least once a quarter during the production months.

The frequency of sampling of products is also to be decided on the basis of perceived risk and is to be adapted to (where applicable increased to take account of) the product group in question, sales volume and the results of previous tests.

All components additionally used for the end product must also be sampled in line with a risk-based plan (including for example marinade, cheese, sausage products).

Note: *Risk-based monitoring of prepared/processed products for Norovirus, Hepatitis A virus, Campylobacter and Listeria is recommended if a contamination/risk for the consumer cannot be excluded.*

Microbiological testing of the products is to be performed by accredited laboratories (in line with EN ISO/IEC 17025 for the area of microbiology).

If the results are unsatisfactory, in case of exceedance of the action value (control plan preparation) and/or in the event of non-compliance with the food safety and process hygiene criteria, the production process must be analyzed for causes. If necessary, suitable measures must be taken to reduce the corresponding germ content:

- Corrective measures (e.g. in the area of production hygiene and in the choice of raw materials)
- Further measures to prevent renewed occurrence of non-acceptable microbiological contamination.

Additionally, for obligate or facultative pathogenic microorganisms must be decided to what extend the sampled batch is a "safe food" in the sense of article 14 of the **Regulation (EC) No. 178/2002** and whether the marketability is guaranteed.

Preparation process

For ready-to-eat prepared fruit and vegetables, in addition to the above requirements, the requirements of the control plan "Microbiological monitoring for ready-to-eat prepared fruit and vegetables and products made from same" (table 1) must be met.

Freezing process

For frozen fruit and vegetables, in addition to the above requirements, the requirements of the control plan "Microbiological monitoring for frozen fruit and vegetables and products made from same" (table 2) must be met.

Table 1: Control plan microbiological monitoring for ready-to-eat prepared fruit and vegetables [a] and products made from same

Food category	Parameter	No. of samples	Sampling frequency	Action value (CFU[b]/g)	Analytical reference method[c]	Test time (process stage)
Prepared fruit and vegetables	EHEC (VTEC, STEC)[d]	One sample	Every three months	Not detectable in 25 g	ISO/TS 13136	At the end of the best-before date
Prepared fruit (Exception near-earth fruit)	*Enterobacteriaceae*	One sample	Every three months	1 x 10^4	DIN EN ISO 21528-2	At the end of the best-before date
Prepared fruit and vegetables	Yeasts	One sample	Every three months	1 x 10^5	ISO 21527-1	At the end of the best-before date
Prepared fruit, *recommendation for prepared vegetables*	Coagulase-positive staphylococci[d]	One sample	Every three months	1 x 10^2	DIN EN ISO 6888-2	At the end of the best-before date

Legend Table 1:
(a) See QS definition of "Preparation"

(b) CFU: Colony-forming unit

(c) The currently valid version of the standard applies.

(d) Obligate or facultative pathogenic germs

Sampling plan, corrective actions report

Table 2: Control plan microbiological monitoring for frozen fruit and vegetables and products made from same

Food category	Parameter	No. of samples	Sampling frequency	Action value (Cfu[a]/g)	Analytical reference method [c]	Test time (process stage)
Frozen fruit (except near-earth fruit)	*Enterobacteriaceae*	One sample	Every three months	$1x10^4$	DIN EN ISO 21528-2	At the end of the best-before date
Frozen fruit/ vegetables	Yeasts	One sample	Every three months	1×10^4	ISO 21527-1	At the end of the best-before date
Frozen fruit/ vegetables	Coagulase-positive staphylococci[b]	One sample	Every three months	1×10^2	DIN EN ISO 6888-2	At the end of the best-before date
Frozen fruit/ vegetables	*Escherichia coli*	One sample	Every three months	1×10^2	DIN EN ISO 16649-1 or 2	At the end of the best-before date
Frozen fruit/ vegetables	Salmonella	One sample	Every three months	Not detectable in 25 g	DIN EN ISO 6579	At the end of the best-before date
Ready-to-eat frozen fruit/vegetables [d]	*Listeria monocytogenes*	One sample	Every three months	1×10^2	DIN EN ISO 11290-1 DIN EN ISO 11290-2	At the end of the best-before date

Legend table 2:
(a) CFU: Colony-forming unit
(b) Obligate or facultative pathogenic germs
(c) The currently valid version of the standard applies.
(d) See QS definition "Ready-to-eat frozen fruit/vegetables"

Sampling plan, corrective actions report

If a prepared/processed product is processed by further internal processes or processes taking place at the customer and if it is ensured that the final product is microbiologically harmless through heating or canning processes, the analyses according to the control plan (table 1/table 2) as well as the quarterly examinations during the production months lapse. However, it must be ensured that the requirements regarding the microbiological parameters described in the customer's supplier specifications are met. Compliance must be checked on a random basis by microbiological analyses.

Soup greens/soup vegetables
In deviation from the control plan for ready-to-eat prepared fruit and vegetables (table 1), the microbiological tests for soup greens/soup vegetables are to be performed on the basis of perceived risk.

Canning production
Notwithstanding the required quarterly microbiological tests by an accredited laboratory, risk-orientated company-internal tests to validate the heat treatment can be performed for microbiological monitoring of the canned foods. For this purpose, the canned foods are to be incubated for a reasonable period and at an appropriate temperature and subsequently evaluated. At the same time cans are to be checked for buckling or swelling. Depending on the product, additional parameters are to be tested (e.g. pH and aw values), thus allowing conclusions regarding the microbiological state of the canned foods to be drawn.

In addition, however, the process of canned food production must be validated at least annually on a risk-oriented basis using microbiological testing, but also in general, whenever a new product is introduced and in the case of changes to existing production processes.

Sample plans for products, test results, documentation of measures

Further document: Explanation note of microbiology and sampling during preparation and processing of fruit, vegetables and potatoes

3.1.4 [K.O.] Temperature recording and monitoring

If temperature treatment is carried out during preparation and processing, a procedure is to be implemented for temperature recording and monitoring. Corrective action is to be taken in the event of nonconformities.

Temperature records, climate records, temperature checklist

3.2 Requirements for the preparation process

3.2.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

Wall surfaces are to be kept in perfect condition and must be easy to clean and, if necessary, to disinfect. They must be waterproof, water-repellent and abrasion proof and made of non-toxic materials as well as have a smooth surface until a respective work process is appropriate height.

3.2.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

3.2.3 Ground clearance

⇒ 2.7 Ground clearance

3.2.4 Order and organisation

The preparation process must follow a structured work sequence. The allocation of positions must clearly follow from the work process and the employee concerned must be aware of possible hazards as well as control actions.

There must be clear batch formation and, if necessary, separation.

3.2.5 [K.O.] Compliance with temperature stipulations

The legal temperatures and any temperatures defined in specifications must be maintained during the production and transport of prepared products within the operational facility and can only be deviated from for short periods when this becomes necessary for practical reasons (e.g. when loading and unloading and during transport within the operating facility).

Temperature recorder, temperature monitoring, measuring records

3.3 Requirements for the freezing process

3.3.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

Wall surfaces are to be kept in perfect condition and must be easy to clean and, if necessary, to disinfect. They must be waterproof, water-repellent and abrasion proof and made of non-toxic materials as well as have a smooth surface until a respective work process is appropriate height.

3.3.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

3.3.3 Ground clearance

⇒ 2.7 Ground clearance

3.3.4 Order and organisation

The freezing process must follow a structured work sequence. The allocation of positions must clearly follow from the work process and the employee concerned must be aware of possible hazards as well as control actions.

There must be clear batch formation and, if necessary, separation.

3.3.5 [K.O.] Registration of temperature

Product-specific freezing programs must be in place and must be complied with. The freezing programs regulate the core temperature as well as the duration of the freezing process. Temperature and time management must be defined and documented. The responsible employees must monitor the temperature/time specifications on a regular basis, take action in the event of deviations, and perform the defined correction actions.

Documentation of temperature/time management

3.4 Requirements for the heating process

If a heating process occurs within the canning process, the requirements of chapter 3.5 Requirements for the canning production must be met.

3.4.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

Wall surfaces are to be kept in perfect condition and must be easy to clean and if necessary to disinfect. They must be waterproof, water-repellent and abrasion proof and made of non-toxic materials as well as have a smooth surface until a respective work process appropriate height.

3.4.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

3.4.3 Ground clearance

⇒ 2.7 Ground clearance

3.4.4 Order and organisation

The heating process must follow a structured work sequence. The allocation of positions must clearly follow from the work process and the employee concerned must be aware of possible hazards as well as control actions.

There must be clear batch formation and, if necessary, separation.

3.4.5 [K.O.] Registration of heating and cooking temperature

Product-specific heating programs must be in place and must be complied with. The heating programs regulate the core temperature as well as the duration of the heating process. Temperature and time management must be defined and documented. The responsible employees must monitor the temperature/time specifications on a regular basis, take action in the event of deviations, and perform the defined corrective actions.

Documentation of temperature/time management

3.5 Requirements for canning production

3.5.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

Wall surfaces are to be kept in perfect condition and must be easy to clean and if necessary to disinfect. They must be waterproof, water-repellent and abrasion proof and made of non-toxic materials as well as have a smooth surface until a respective work process appropriate height.

3.5.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

3.5.3 Ground clearance

⇒ 2.7 Ground clearance

3.5.4 Order and organisation

The canning production must follow a structured work sequence. The allocation of positions must clearly follow from the work process and the employee concerned must be aware of possible hazards as well as control actions.

There must be clear batch formation and, if necessary, separation.

3.5.5 [K.O.] Food preservation

The shelf life, microbiological stability and safety of the products must either be based on heat treatment in the packaging alone, or - if necessary - a combination of heat treatment in the packaging and other process parameters (e.g. pH-value or aw-value).

For pasteurisation/sterilisation the product-specific F- (or P-) and D-values determined within the operation are to be observed.

Specific heating and cooling programs must exist and be adhered to for the respective product groups. The stipulated temperature / time management is to be observed in every pasteurization/sterilization procedure and also documented. The responsible employees must regularly check the temperature / time parameters and intervene in case of deviations and perform the specified corrective measures.

If preservation is based on a combination of heat treatment and other process parameters, the relevant parameters must also be complied with and documented.

At the end of the manufacturing process, a random leakage check of the tinned products must be carried out.

Documentation of temperature/time management

3.5.6 Requirements for containers (tins)

Clean and undamaged containers must be used when filling. The containers must be free of foreign bodies. They must also be suitable for the intended use.

3.6 Requirements for sprout production

3.6.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

Wall surfaces are to be kept in perfect condition and must be easy to clean and if necessary, to disinfect. They must be waterproof, water-repellent and abrasion proof and made of non-toxic materials as well as have a smooth surface until a respective work process appropriate height.

3.6.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

3.6.3 Ground clearance

⇒ 2.7 Ground clearance

3.6.4 Order and organisation

The process of sprout production must follow a structured work sequence. The allocation of positions must clearly follow from the work process and the employee concerned must be aware of possible hazards as well as control actions.

There must be clear batch formation and, if necessary, separation.

3.6.5 [K.O.] Official approval of companies that produce sprouts

Regulation (EC) No. 210/2013 of 11 March 2013 on the approval of establishments producing sprouts of the European Parliament and of the Council stipulates an approval obligation in line with **Regulation (EC) No. 852/2004** for companies producing sprouts.

Scheme participants must be able to provide written proof of approval (in acc. with Art. 6 of Regulation (EC) No. 852/2004). Approval is issued by the monitoring authority within whose scope of responsibility the company lies.

Proof of official approval

3.6.6 Quality of cultivation water

Seeds should be immediately washed with drinking water before germination. The used water must be analyzed according to requirement 2.4.1 "Water quality". This also applies to water that is used for sprouts cultivated in germinators.

In addition, compliance with the following chemical parameters must be ensured:

- Arsenic: 0.01 mg/l
- Cadmium: 0.003 mg/l
- Lead: 0.01 mg/l

The chemical parameters are considered to be met if the water complies with the specifications of the **German Drinking Water Ordinance** and/or the European **Directive 98/83/EC on the quality of water intended for human consumption.**

Proof of quality of cultivation water

3.6.7 [K.O.] Traceability

Alongside the requirements for traceability outlined in Section 5.3, the following requirements are also of relevance for sprouts:

- For sprouts and seeds for the production of sprouts, compliance with the stipulations of Regulation (EC) No. 208/2013 Article 3 is additionally required.
- If seeds are imported into the European Union, each shipment must be accompanied by a certificate in line with Article 3 of Regulation (EC) No. 2011/2013. A copy of the certificate for the imported seeds for sprout production is to be forwarded to each intermediate company handling the seeds all the way through to the producer of the sprouts.

Proof of certification of seeds

3.6.8 Transport receptables/containers

Transport receptacles and/or containers for transporting seeds must be kept clean and maintained in line with the **Guidance document on the implementation of certain provisions of Regulation (EC) No. 852/2004** in order to protect the food against contamination. They must be designed and constructed in such a way that appropriate cleaning and/or disinfection is possible. Transport receptacles and/or containers may only be used for transporting food.

4 Packaging and other business premises

4.1 Packaging/redistribution

4.1.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

4.1.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

4.1.3 Ground clearance

⇒ 2.7 Ground clearance

4.1.4 Packaging material

Only packaging material from which the outer packaging has been removed is to be used. Packaging damage is to be avoided and prevented, particularly in the case of packaging materials such as plastics (HACCP).

Reusable packaging (crates, boxes, etc.) must undergo mechanical cleaning after every circulation prior to renewed use. Other suitable processes (e.g. high-pressure cleaners) may also be used to clean large reusable packages (> 60 x 90 cm).

4.1.5 [K.O.] Declaration of conformity/declaration of no objection

The packaging material which comes into direct contact with food must present no health risks and be hygienically flawless. The validity of the declaration of conformity must be ensured. A declaration of no objection must be available for all packaging materials used for which no declaration of conformity is required in line with **Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food**.

Packaging material and packaging aids must be suitable for the purpose for which they are intended and must comply with current legal regulations.

Certificates of conformity for the packaging material used must be present in the company where the packaging takes place. If the packaging material is purchased by another company (e.g. an agency) the respective certificates must be present there as well.

Declaration of Conformity/declaration of no objection packaging material

4.1.6 Storage of packaged goods

To maintain quality, the following points need to be observed when storing packaged goods prepared for transportation:

- Adequate hygiene conditions
- Protection against physical and chemical risks (adequate temperature, no permanent exposure to light etc.).

4.1.7 Storage/transport containers for products

In-house storage facilities/transport containers for the goods may only be used for the storage and transport of these goods. The containers must be suitable for the intended purpose, safe from the point of view of health, clean and hygienically flawless, and they must ensure that contamination is prevented.

4.1.8 [K.O.] Temperature recording and monitoring

Temperature guidelines must be available for all packaged or labelled products requiring cool storage, which are also included as a notice on the final consumer packaging. The cold chain must be monitored and documented within the company's sphere of influence. If temperature limits are exceeded, the respective corrective actions must be defined and known to the respective members of staff.

Documentation of temperature

4.2 Other business premises

4.2.1 Packaging material storage

Packaging material is to be stored in a separate area and not together with other goods. The room must be clean and tidy and must be cleaned in line with the cleaning and disinfection plan. The risk of contamination is to be taken into account when storing packaging materials and any packaging aids.

4.2.2 Storage of cleaning agents and disinfectants

Rooms or facilities in which cleaning products, disinfectants and cleaning equipment are stored must be kept clean and tidy. They must ensure hygienic storage of the equipment and, if necessary, a clear separation of clean/unclean equipment. The equipment must be regularly maintained and cared for. A procedure for cleaning and, if necessary, disinfecting the rooms and cleaning equipment must be available and familiar to staff.

Current safety data sheets and usage instructions must be available for cleaning products and disinfectants. Usage instructions must be known to the responsible members of staff and must be stored on site. Cleaning/disinfection products and equipment must be clearly labelled and stored separately from food in accordance with the specific requirements.

For environmentally hazardous substances, additional precautions (e.g. protective trays) must be met in accordance with the relevant safety data sheets and usage instructions.

Safety data sheets, usage instructions

4.2.3 Waste disposal logistics

Food waste and other waste products

- must be removed from locations in which food is handled as quickly as possible in order to prevent accumulation of waste
- must also be stored in closed containers. These containers must be suitable for proper maintenance, easily cleanable and, if necessary, easy to disinfect. If there is a risk of confusion between waste containers and food containers, or for any another necessity, the containers must be labelled.

Suitable precautions must be taken for the storage and disposal of food waste and other waste products. Waste collection rooms must be designed and managed in a way that they can be kept clean and free from animals (dogs, cats, birds) and pests. The rooms must be cleaned regularly. This must be documented. Waste must be stored in an area where it is protected against unauthorised access.

Waste must be disposed of as per local hygiene regulations in a hygienically sound, environmentally sustainable manner and may not impair food. Wastewater disposal facilities must be constructed in such a way that they cannot impair goods.

To avoid unnecessary waste and to ensure efficient use of resources, the company must have its own waste management/recycling system in place. Waste must be disposed of selectively (e.g. dual system or similar). The recycling management plan must be documented, and evidence must always be available for:

- Waste produced
- Disposal route
- Fate

Recycling management

5 Incoming and outgoing goods, labelling, use of the certification mark, traceability and transport

5.1 Incoming goods

5.1.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

The incoming goods area must be designed in such a way as to allow for access restrictions and restrictions on external persons or visitors entering the company. A separate entrance must be made available to staff.

5.1.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

Rooms must be protected from pest infestation with closable gates and doors. Delivered goods must also be inspected for infestation and the appropriate corrective actions must be implemented, if necessary.

5.1.3 Ground clearance

⇒ 2.7 Ground clearance

Primary products may be stored directly on the ground or on the appropriate devices if the floors or material on which they are stored is in a clean and flawlessly hygienic condition.

5.1.4 Order and organisation

The receiving department must follow a structured work sequence. The allocation of positions must clearly follow the work process, and possible hazards to food safety must be avoided. Pathways for goods must be such that there is no possibility of cross-contamination. Goods that need to be cooled must be taken to the cold stores without delay (if the goods are not prepared/processed directly) or necessary measures must be taken to ensure compliance with the cold chain.

5.1.5 Transport vehicles delivery

Delivery vehicles must be kept in hygienic and tidy condition and show no signs of residual dirt. The driver and anybody accompanying the driver must be wearing appropriately clean clothing. Goods must not be negatively affected by clothing or handling.

The goods to be transported must be loaded in an appropriate hygienic condition.

5.1.6 Incoming goods inspection

Incoming goods inspections must follow a defined and written procedure and must be implemented based on internal specifications. The controls on incoming goods must be documented. They must incorporate all relevant products. If required, the incoming goods inspection must be adjusted to any changes in manufacturing, storage or transport conditions.

Incoming goods inspection

5.1.7 [K.O.] Labelling of purchased QS produce

QS goods must be clearly identified as such in the delivery documents (e.g. delivery notes, shipping notifications, weighing slips, invoices, credit notes). The labelling can be indicated either on the article/on the article item (example: asparagus (QS), QS asparagus) or by an explanatory note (e.g.: "All items are QS goods", "All asparagus is QS goods", "DE = QS"). This applies to the physical shipment of goods as well as marketing through an agency.

If cross-company merchandise management systems or electronic data exchange systems (e.g. EDI) are used, QS goods can also be labelled digitally.

As an alternative to labelling QS goods in the (digital) delivery documents, producers,

- who are members of a producer organisation with a contractual delivery obligation, or
- who are closely associated with the buyer of the goods in terms of organisation and company law (e.g. producers also operate a wholesale company, same ownership structure)

may agree general terms with the buyer, provided that

- the QS crops entitled to be delivered are marketed to the customer as QS goods without exception, and
- the procedure is documented by the producer and the customer, is known to the employees concerned and can be traced in the audit.

The labelling obligation applies to all QS goods, regardless of whether the QS certification mark is used on the label or the outer packaging (⇒ 2.1.2 Use of the QS certification mark) or not.

Information about the QS status of the goods must be available at the time of physical receipt of the goods or during the outgoing goods inspection. In the case of marketing through an agency, it must be possible to trace the information on the QS status of the physically delivered goods at the agency.

The clear assignment between QS goods and corresponding delivery documents must be guaranteed at all times.

The regulations for labelling QS goods are known to the responsible employees who work with the products - even if no QS goods are handled.

Proof of QS produce (e.g. delivery notes, invoices etc.)

Further document: Explanation note of the labelling of fruit, vegetables and potatoes as QS goods

5.1.8 [K.O.] Product temperature

The temperatures of goods that are subject to mandatory cooling regulations (legal requirements, producers' specifications) must be recorded and documented during the incoming goods inspection. If lower temperatures have been defined in the company and agreed with the supplier, they must be complied with and observed when receiving goods. The procedures must be designed in such a way that the temperature requirements are complied with at all times. The required product temperatures must be adhered to and may only deviate for a short period if this is required for reasons of practicality (e.g. during loading and unloading, during transport into the facility).

In the case of frozen food, the temperature throughout the food must be maintained at minus 18 °C or below. During unloading and putting into storage, short-term variations by a maximum of 3 °C are permitted (in accordance with **TLMV (German Frozen Food Ordinance)**).

Documentation of temperature

5.1.9 Quality requirements

Goods must be visually inspected for defects by taking random samples. Delivered goods must also be checked for pest infestation and if necessary, appropriate measures must be introduced. The results of this goods inspection must be documented.

Checklist for incoming goods/visual rating, results report

5.1.10 Hygiene requirements

The condition of the goods must be examined in relation to product defects and any noticeable adverse impact. Rejected goods are to be removed or returned if necessary (random sampling for spoilage or partial spoilage due to rotting or mould, dirt and impurities, odor-intensive contaminants, disease and pest infestation).

Checklist for incoming goods

5.1.11 Product labelling

Compliance with European and national regulations and laws on labelling of fresh and prepared/processed fruit, vegetables and potatoes must be monitored.

This applies to:

- Packages (cardboard boxes, plastic crates)
- Retail packs
- Accompanying documentation/delivery notes/labels

Each package must display the information in legible, indelible letters and numbers that are visible from the outside or on a label forming an integral part of the package or affixed in a durable manner to it.

Depending on the legal requirements, the following information must be provided:

- Type of produce
- Quantity/filling weight
- Batch/lot number
- Treatment instructions (post-harvest treatment/sprout control)
- Distributor/packaging company
- Commercial denomination
- Special storage instructions (temperature)
- Best-before date/use-by date
- Notice of allergenic substances

Further applicable documents are the **German act governing units of measurement and calibration (Eichgesetz), German packaging act (FertigPackV), EU food information regulation (LMIV), German batch labelling ordinance (LKV), German price indication ordinance (PAngV), German additive approval ordinance (ZZulV), EU marketing standards.**

5.1.12 Labelling of QS produce with an identification number

QS goods must be labelled with the OGK number/QS ID or another in the QS-database deposited identification number of the producer (e.g. GLOBALG.A.P.-Number (GGN) or Global Location Number (GLN)) in the delivery notes/accompanying documents or on the label of the goods (or box label).

In the case of batches which may contain goods from several producers due to mixing as a result of bulk goods storage or technical packaging or treatment processes (e.g. sorting system) and in the case of packed goods which contain goods from several producers, the QS ID, the GH-number or another in the QS-database deposited identification number (e.g. the GLN, GGN) of the packing location can be used alternatively.

5.2 Outgoing goods and returns management

5.2.1 Technical/structural condition

⇒ 2.5 Technical/structural condition

5.2.2 Room, equipment and plant hygiene

⇒ 2.6 Room, equipment and plant hygiene

5.2.3 Ground clearance

⇒ 2.7 Ground clearance

5.2.4 [K.O.] Outgoing goods inspection

A structured and comprehensible inspection of outgoing goods must be implemented within the company. The manner, in which nonconformities are handled, must be specified. The responsible employees must be trained in dealing with non-conforming products. Before loading, the accompanying documents must be checked, the load must be reconciled (goods and packaging) as well as an inspection of the correct product labelling must be conducted. Specifications must be complied with.

Checklist for outgoing goods/delivery notes

5.2.5 [K.O.] Labelling of marketed QS produce

Goods can only be marketed/delivered as QS goods if a corresponding QS eligibility for delivery exists for the company's own location and the goods were purchased as QS goods. QS goods must be clearly labelled as such in the accompanying documents.

QS goods must be clearly identified as such in the delivery documents (e.g. delivery notes, shipping notifications, weighing slips, invoices, credit notes). The labelling can be indicated in the accompanying documents either on the article/on the article item (example: asparagus (QS), QS asparagus) or by an explanatory note (e.g.: "All items are QS goods", "All peeled asparagus is QS goods", "DE = QS").

This applies to the physical shipment of goods as well as marketing through an agency.

If cross-company merchandise management systems or electronic data exchange systems (e.g. EDI) are used, QS goods can also be labelled digitally.

The labelling obligation applies to all QS goods, regardless of whether the QS certification mark is used on the label or the outer packaging (⇒ 2.1.2 Use of the QS certification mark) or not.

Information about the QS status of the goods must be available at the time of physical receipt of the goods or during the outgoing goods inspection. In the case of marketing through an agency, it must be possible to trace the information on the QS status of the physically delivered goods at the agency.

The clear assignment between QS goods and corresponding delivery documents must be guaranteed at all times.

The regulations for labelling QS goods are known to the responsible employees who work with the products - even if no QS goods are handled.

Incoming and outgoing goods documents

Further document: Explanation note of the labelling of fruit, vegetables and potatoes as QS goods

5.2.6 [K.O.] Final product inspection

For the purpose of final product inspection, checking procedures must be defined to ensure flawless delivery of the products in question.

In the case of unpackaged goods, this includes:

- Where applicable temperature monitoring
- Damage/Soiling
- Correct labelling

Additional procedures for packaged goods:

- Where applicable seal tightness check
- Where applicable monitoring of filling weight
- Where applicable inert gas concentration
- Where applicable best-before date/use-by date/storage notes

These checks must be performed and documented on a regular basis and must meet the legal requirements. In the case of monitoring of filling weight, quantity and contents (taking account of tolerances) must correspond to the details on the packaging or in the specification.

Documentation of final product inspection

5.2.7 Complaints and objections

There is a documented system for handling product complaints from authorities (incl. food safety-related failure reports) and product complaints from customers and end consumers. All complaints are evaluated and appropriate measures are taken where necessary.

5.2.8 Returns Management

A documented system for processing returns must be in place. All returned goods must be recorded and evaluated. Decision processes relevant to the further use of returned goods must be followed. Appropriate corrective actions must be implemented to prevent the recurrence of nonconformities. The separation of QS produce and non-QS produce must be observed. In the case of returns of goods that are not legally marketable, the further handling of the goods or the disposal of the goods must be documented.

5.2.9 Order and organisation

In the area of order picking and shipping of purchased goods, clear procedures and processes must be defined which take at least the following points into consideration, and ensure adherence to these points:

- Temperature
- Labelling (labels, packing slips, QS test mark)
- Best-before date/expiry date/storage instruction
- Damage/Impurities

5.2.10 [K.O.] Product labelling

Compliance with European and national regulations and laws on labelling of fresh and prepared/processed fruit, vegetables and potatoes must be monitored.

This applies to:

- Packages (cardboard boxes, plastic crates)
- Retail packs
- Accompanying documentation/delivery notes/labels

Each package must display the information in legible, indelible letters and numbers that are visible from the outside or on a label forming an integral part of the package or affixed in a durable manner to it.

Depending on the legal requirements, the following information must be provided:

- Type of produce
- Quantity/filling weight
- Batch/lot number
- Treatment instructions (post-harvest treatment/sprout control)
- Distributor/packaging company
- Commercial denomination
- Special storage instructions (temperature)

- Best-before date/use-by date
- Notice of allergenic substances

Further applicable documents are the **German act governing units of measurement and calibration (Eichgesetz), German packaging act (FertigPackV), EU food information regulation (LMIV), German batch labelling ordinance (LKV), German price indication ordinance (PAngV), German additive approval ordinance (ZZulV), EU marketing standards**.

All self-placed information indicated on the label must be correct (for example QS-ID, location number, GLOBALG.A.P. number (GGN), (regional) indications of origin).

5.2.11 Labelling of QS produce with an identification number

QS produce must be labelled with the OGK number/QS ID or another producer identification number stored in the QS database (e.g. GLOBALG.A.P. number (GGN) or global location number (GLN)) on the delivery note/accompanying documentation or on the produce label (or box label).

For batches that may contain produce from multiple producers due to the produce being combined as a consequence of bulk storage or technical packaging/preparation processes (e.g. sorting facilities), and for packages that may contain goods from multiple producers, the QS ID, GH No. or other identification number stored in the QS database for the packaging location (e.g. GGN, GLN) may be used.

5.2.12 [K.O.] Product temperature

The legally required temperatures and any specifications must be maintained and can only be deviated from for short periods when this becomes necessary for practical reasons (e.g. when loading and unloading and during transport within the operating facility). Product-specific regulated temperature ranges must be maintained.

If lower temperatures are set by the company (internal guidelines) and agreed with the supplier (e.g. in specifications), the products must be kept at these temperatures.

The temperatures are to be monitored and documented.

Temperature records, outgoing goods checklist

5.2.13 [K.O.] Temperature recording and monitoring

Temperature specifications must be in place for all products subject to mandatory cooling requirements (⇒ 5.2.13 Product temperature). Compliance with the cold chain must be monitored in the areas controlled by the company and the temperatures must be documented. Measures to be taken in the event of temperatures above the permitted levels must be defined and known to the responsible employees.

Self-assessment records, checklists, documentation of temperature, documentation on measures in the event of nonconformities

5.3 Traceability and origin of goods

Note: *In order to verify the identity and traceability of the products in the QS scheme, cross-audit delivery note checks or so-called cross-checks are carried out in the QS supply chain fruit, vegetables, potatoes.*

Further document: Cross-Checks Fruit, Vegetables, Potatoes

5.3.1 [K.O.] Methods of traceability

Evidence of a transparent commodity flow must be provided. System participants must set up traceability systems and procedures in accordance with **REG (EC) No 178/2002**. The batch sizes produced by each supplier must be defined to ensure traceability. It must be ensured that an article or article group can be traced back to the daily production or shift as a minimum.

Each scheduled and incoming goods shipment must be given a lot number/ID. The relevant lot number must be noted on the corresponding accompanying documents (e.g. dispatch notification/fax of supplier, stock record, quality records, delivery note/packing slip, invoice to the customer, bill for the supplier), and must remain with the goods from receipt until dispatch/delivery from the company to the customer. Existing labelling systems may also be used, as long as identity/similarity of the goods is assured. All necessary data for the identification/class division/sorting/treatment and traceability are to be documented under the lot number.

A labelling and registration system must be in operation that is understandable to third parties. The labelling and registration system must ensure that goods can be clearly identified and that the commodity flows and packaging materials are traceable and comprehensible at all times.

It must be ensured that traceability data is submitted to QS within 24 hours after contacting the scheme participant.

Internal traceability processes must be structured during an audit in such a way that the respective information can be compiled within four hours.

The following information on customers, suppliers and deliveries is relevant:

- Name, address and telephone number of the food business operator from whom the food was obtained or dispatched
- Name, address and telephone number of the food business operator to whom the food was marketed or delivered
- QS-ID and location number (provided these identification numbers are assigned as part of the QS scheme)
- Type and quantity of the delivered products
- Dispatch date, delivery date
- Batch number (if generated during the production process)
- For bulk goods, the batch/lot number on the outer packaging

Supplier and customer list
It must be possible to trace which products/packaging materials were procured from which supplier. A list of all the suppliers must be available.

It must be possible to trace which products are delivered to which customer. A list of all the customers must be available.

Batch labelling, traceability system, batch formation, incoming goods documents (e.g. delivery notes, incoming goods inspection) and outgoing goods documents, supplier list, customer list

5.3.2 [K.O.] Traceability check

The traceability of all goods is to be checked using an example from production or outgoing goods in accordance with **REG (EC) No. 178/2002**. This also applies to spices and – in accordance with **REG (EC) 1935/2004** (on materials and articles intended to come into contact with food), – to packaging.

The system must be tested at least once a year (approx. every 12 months). All relevant commodity flows must be taken into account. The test must be documented and the findings presented in a comprehensible manner.

Traceability system test

5.3.3 [K.O.] Reconciliation of incoming goods with outgoing goods

There must be a plausible relation between the quantity of goods purchased and marketed and the quantity of goods produced (stored and delivered), taking into account losses due to manufacturing processes.

Incoming goods documents (e.g. delivery notes, incoming goods inspection) and outgoing goods documents as well as quantity of goods in cold/frozen storage rooms

5.3.4 [K.O.] Check on QS eligibility of delivery

***Note**: For service providers who do not become the owner of the goods (e.g. packing stations), the requirement is not relevant, as the verification of the eligibility of delivery has to be carried out by the ordering party.*

A documented procedure must be in place to ensure the following:

Suppliers/Delivering companies
All Suppliers/companies delivering QS produce must be clearly identified in the QS database as a location with eligibility of delivery for the corresponding production scope and at the stage production additionally for the corresponding crop at the time of handing over the goods. This also applies to agencies and to companies that handle products but do not own the goods.

Receiving companies
If the goods are labelled with the QS certification mark on the label or outer packaging, the location of the consignee/recipient of the goods must be identified in the QS database for the corresponding production scope eligible to deliver.

Process for checking QS eligibility of delivery

5.3.5 [K.O.] Separation and identification of QS produce/non-QS produce

Companies must have a comprehensible system in place for separating QS produce from non-QS produce. It must be guaranteed that QS produce and non-QS produce are clearly labelled and separated into batches. If no QS produce exists within the company (e.g. during initial audit), the goods separation procedure must be demonstrated in a suitable manner.

QS produce must be clearly identifiable within the company at all times. It must be ensured that there is no possibility of confusion.

5.4 Transport/logistics

5.4.1 Product-compliant transport

Goods must be transported as per product requirements. Goods must be transported in closed, heat-insulated vehicles or refrigerated vehicles, taking into account the type of goods, transport distance and outside temperatures. Fruit, vegetables and potatoes that are transported in open bags on open vehicles must be adequately covered. Loose goods are to be transported in such a way that no contamination may occur.

5.4.2 Transport hygiene

Delivery vehicles must be in a hygienically sound and tidy condition and display no signs of previous soiling. Cargo holds and loading surfaces may only be used if they are clean and free from any contamination. Before loading and after unloading, the loading area must be checked for dirt. If necessary, the loading area needs to be cleaned.

Drivers and any accompanying persons must be wearing clean clothes. The goods may not be impaired by clothing or by the way the goods are handled, for instance.

The goods to be transported must be loaded in a hygienic condition appropriate for the product.

Checklist for transport vehicle

5.4.3 [K.O.] Temperature control

For vehicles in the company's own fleet, the temperature inside cargo holds must be set in accordance with the goods to be transported. The temperature must be checked and documented before the start of the journey. If necessary, the temperature recorders on the vehicle must be checked and read. Temperature checks before the journey may be omitted if temperatures are recorded continuously during transport.

For goods that require cold storage, the temperature for the entire journey must be maintained and continuously documented in accordance with the applicable guidelines and specifications.

⇒ 2.10.5/2.11.5 [K.O.] Temperature recording and monitoring

Temperature recording

5.4.4 Ground clearance

⇒ 2.7 Ground clearance

Primary products may be stored directly on the floor or appropriate equipment if the floors or the material on which the products are stored are in perfectly hygienic and clean condition.

6 Further process requirements

6.1 Product-specific criteria for the storage of potatoes

6.1.1 Suitability of warehouse

The facilities for incoming goods must enable a safe and appropriate transfer of the goods from transport vehicles. The structural and technical design of the warehouse must meet the requirements of potatoes in terms of protective handling.

6.1.2 Suitability of the equipment for incoming and outgoing goods

The number and height of the steps at each transfer point must be as low as possible. Furthermore, to avoid strain on the tubers, attention should be paid to where the flow of goods is redirected, as well as to belt speeds, rolling distances and any edges, corners, screws, etc. that are sticking out.

6.1.3 Suitability of preparation and packaging systems and cleaning

An analysis must be carried out and documented on the preparation lines to assess for danger spots where tubers could be damaged as well as other dangers to the quality and appearance of tubers. The preparation facility must be cleaned regularly. The cleaning process must guarantee the varietal purity of each batch and the prevention of phytosanitary contamination/impurities as well as any health hazards to employees (cleaning plan/hygiene checklist).

Cleaning plans, hazard analysis

6.2 Treatment

6.2.1 Treatment and sorting

During treatment and sorting, continuous attention must be paid to damage to the goods and, if necessary, packaging. Furthermore, the goods must be monitored for the correct product labelling. It must be ensured that QS produce is clearly identifiable and that no confusion may arise.

Water that is used for washing produce may only contain the additives intended for this purpose. The use of these substances is to be documented.

Potatoes
Before potatoes are removed from long-term storage, a representative sample must be taken to determine the internal and external tuber defects. Depending on the established results, a decision is made regarding the next steps for preparation and marketing.

Potatoes may only be removed from storage if the tubers are in a suitable condition.

The potatoes must be marketed in accordance with the latest version of the **Berlin agreement** if relevant.

The tuber grading/laboratory analysis results must be noted and documented in the inventory file.

Grading protocol

6.2.2 [K.O.] Post-harvest treatment and sprout suppressants

Any post-harvest treatment or application of chemical sprout suppressant must be documented along with the:

- Batch number
- Application date and location of usage
- Concentration
- Post-harvest treatment product or chemical sprout suppressant

Only products permitted in the country of application may be used for post-harvest treatment or chemical sprout control. The statutory requirements of the country of destination, including the labelling on each of the packages and shipping units, must be adhered to.

Protocol usage, post-harvest treatment product/sprout suppressant agents

7 Residue Monitoring

7.1 Organisation and implementation of the residue monitoring

7.1.1 Organisation of the residue monitoring

The organisation of QS residue monitoring must be known. This involves knowledge of the required amount of samples as per the control plan and commitment to enter sample related data in the QS database when fresh, unprepared/unprocessed QS produce are purchased.

7.1.2 [K.O.] Implementation of the residue monitoring

Participation in QS-approved residue monitoring is mandatory for all scheme participants. The obligation relates to fresh, unprepared/unprocessed QS goods. Prerequisites for implementing residue monitoring are, for instance, to commission a QS-recognized laboratory for residue analyses, sampling per the control plan and sharing analysis result data with QS via the laboratory. The volume of samples is aligned with the quantity of QS produce purchased. Compliance with the control plan is mandatory. This relates to both the required number of samples per product and to the analysis methods listed as minimum requirements in the control plan for each product. At least one sample must be taken per year if 10 percent of the tonnage defined in the control plan for

the respective product has been purchased as QS goods. The fulfilment of the required number of samples must be proven for a 12-month period.

All the requirements are described in the **Guideline Residue Monitoring**, which is obligatory for the implementation.

Entering the analysis results into the QS database is obligatory for all scheme participants that purchase QS produce. Any data provided or transferred via alternative means will not be accepted and will be evaluated as incomplete. It is the responsibility of the company to enter sample related data regularly and to check and enter analysis results. A sample can only be used once to make up the targeted number of samples. For all samples, only one sample related data set and one analytical result per physical sample is allowed.

All scheme participants using facility protection products or post-harvest treatments are also committed to complying with the maximum levels for pesticide residues on food (**REG (EC) No. 396/2005**) – or similar provisions – applicable in the country of production and country of destination. The following are exempt from implementing residue monitoring:

- Wholesale companies that do not own the goods but act solely as a service provider (e.g. washing, sorting, packing).
- Companies at the stage preparation/processing that are closely associated with their suppliers on the wholesale level in terms of organisation and company law. This exemption from the obligation to implement residue monitoring does not apply to goods a company purchases from third parties.

Laboratory results in the database

8 Definitions

8.1 Explanation of symbols

K.O. criteria are marked with **[K.O.]**.

References to related documents are highlighted by **bold print in the text**.

This symbol means: A written confirmation must be provided. Next to this symbol also documents are listed that can be used as evidence. All (also digital) control - and documentation systems, which proof that the requirements are fulfilled, can be used.

References to other chapters of the guideline are marked with ⇒.

Notes are marked with ***Note:*** *text in italics*.

8.2 Abbreviations

BBD	Best-before date
CCP	Critical Control Point
EDI	Electronic Data Interchange
FEFO	First Expired – First Out
FIFO	First In – First Out
GGN	GLOBALG.A.P. number
GHP	Good Hygiene Practice
GLN	Global location number
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
K.O.	Knock out

8.3 Terms and definitions

- Action value

  If the action value for end products is exceeded, the production process must be analyzed for causes and, if applicable, measures must be taken to reduce the germ content. Additionally, for obligatory or facultative pathogenic microorganisms (EHEC/STEC, Staph. aureus) must be decided to what extend the sampled batch is a "safe food" in the sense of article 14 of the Regulation (EC) No. 178/2002. For results below the action value no measures are necessary.

- Agent

  In terms of QS, agents/mediators of fruit, vegetables and potatoes only play a mediating role between suppliers and recipients. They are neither owners nor the possessor of the goods.

- Canning production

  Process in which the product is pasteurized/sterilized in the final packaging. Therefore, the product can be stored without cooling.

- Cross-check

  Cross-stage and cross-audit delivery note checks, on the basis of which the QS requirements for traceability and goods identity are checked. Basic information and details on the implementation of the cross-checks can be found in the document "Cross-Checks Fruit, Vegetables, Potatoes".

- Food safety criterion

  A criterion used to determine the acceptability of a product or food batch, and which applies to products already on the market (in accordance with REG (EC) 2073/2005).

- HACCP (Hazard Analysis and Critical Control Point)

  A system which identifies, evaluates and controls hazards which are significant for food safety.

- HACCP concept

  Documentation in compliance with HACCP principles to ensure the monitoring of hazards relevant to food safety.

- Heating process

  The following processes are understood as heating processes: boiling, cooking, blanching, pasteurisation, sterilisation, frying, grilling, roasting, stewing.

- Labelling

  Labelling is the identification of the QS produce on the delivery documents (e.g. delivery notes, shipping notifications, weighing slips, invoices, credit notes. Goods that are produced in accordance with the requirements of the QS scheme, but that are not marked on the delivery notes as QS lose their status as QS goods. It is not allowed to market these goods as QS goods.

- Logistics companies

  As defined by this guideline, logistics companies are companies, which logistically handle – e.g. which transport, ship, load, unload and commission – fresh prepared and/or processed fruit, vegetables and potatoes. This comprises all activities involved in delivery per truck (road transport), short-term storage for the purpose of transshipment of the goods during delivery, the long-term storage and the order picking. Logistics companies, which also pack, trade and/or prepare/process goods are categorized as wholesale (first-line merchants or trading partners) or preparing/processing companies.

- Preparation

  Preparation comprises all activities in which the product is shredded, peeled, grated, sliced, pureed or strained after the harvest. Preparation does not cover activities in which the product is exclusively podded, hulled or cleaned (e.g.: the removal of roots and leaves, the removal of the heart in the case of cauliflower and cabbage, the removal of the root section in the case of kohlrabi, the shortening of leaves in the case of leek).

- Process hygiene criterion

  A criterion which stipulates the acceptable method of functioning of the production process. A criterion of this kind does not apply to products already on the market. It is used to determine a guidance value for contamination which, when exceeded, requires corrective action so that process hygiene is maintained in compliance with food law (in accordance with REG (EC) 2073/2005)

- QS produce

  Goods that are produced resp. marketed/handled in accordance with the requirements of the QS scheme only by companies with QS eligibility of delivery. QS produce is clearly labelled as QS produce in the accompanying documents.

- Ready-to-eat food

  Food intended by the producer or manufacturer for direct human consumption without the requirement for further heating or other form of processing to kill off any relevant microorganisms or reduce them to an acceptable level.

- Ready-to-eat frozen fruit/vegetables

  Frozen ready-to-eat products are frozen fruit and vegetable products that are used under normal conditions without heating, e.g. in smoothies or salads. On the other hand, frozen fruit and vegetable products to which further ingredients in the form of butter or sauces have been added and which are heated as intended before consumption or frozen fruit and vegetable products with a labelled information ensuring that the product is only consumed after sufficient heating are considered as not ready-to-eat.

- Service provider

  In terms of QS, service providers are companies engaged in activities within the meaning of wholesale trade (e.g. storage, sorting, packing). They do not become the owner of the goods.

- Soup greens/soup vegetables

  Soup greens/Soup vegetables are intended for use in the preparation of soup and are marketed in the retail sector under these or similar designations. They consist of various types of fresh vegetables that are either uncut or roughly cut and that has not been processed any further than this stage. Soup greens and soup vegetables are generally carrots, celeriac, leek, cauliflower as well as, where applicable, parsley and other herbs.

- Traceability

  Ability to track a product through all stages of production, preparation/processing and distribution.

- Use of QS certification mark

  Use of QS certification mark describes how the QS certification mark is represented on goods.

You find a listing of general terms and definitions in the **Guideline General Requirements**.

9 Annex

9.1 Annex additional module "Convenience"

The annex is published as an excerpt.

The additional module “Convenience” is aimed at scheme participants in the stages deboning, processing meat/meat products and preparation/processing fruit, vegetables, potatoes who produce products with a *low QS content* and wish to use the QS certification mark on these products.

The products include, for example, pasta, pizza, lasagna, baked goods, sandwiches and convenience products with a high liquid/pasty content (e.g. delicatessen salads with mayonnaise/dressings) as ready-to-eat to eat meals and menu components.

Revision Information Version 01.01.2026

Criterion	Changes	Date of change
2.1.3 Incident and crisis management	**Clarification:** Each scheme participant must maintain a documentation structure for reporting incidents, for example the QS paper of incident, to enable them to pass on any required information in the appropriate format if an incident occurs.	01.01.2026
2.1.7 Commissioning of logistics companies/subcontractors	**Editorial revision** **New:** Logistics companies that are commissioned sporadically and are not QS eligible to deliver must be required by the client to allow inspections by the client's certification body and/or by QS in individual cases.	01.01.2026
5.1.7 Labelling of purchased QS produce	**Editorial revision** **Clarification:** QS goods must be clearly identified as such in the delivery documents (e.g. delivery notes, shipping notifications, weighing slips, invoices, credit notes). This applies to the physical shipment of goods as well as marketing through an agency. **Clarification:** Information about the QS status of the goods must be available at the time of physical receipt of the goods or during the outgoing goods inspection. In the case of marketing through an agency, it must be possible to trace the information on the QS status of the physically delivered goods at the agency. **New:** As an alternative to labelling QS goods in the (digital) delivery documents, producers, • who are members of a producer organisation with a contractual delivery obligation, or • who are closely associated with the buyer of the goods in terms of organisation and company law (e.g. producer also operates a wholesale company; same ownership structure) may agree general terms with the buyer, provided that • the QS crops entitled to be delivered are marketed to the customer as QS goods without exception, and • the procedure is documented by the producer and the customer, is known to the employees concerned and can be traced in the audit. **Deletion:** The use of general rules between scheme participants at the wholesale and/or processing stages is no longer applicable (transitional period expired).	01.01.2026
5.2.5 Labelling of marketed QS produce	**Editorial revision** **Clarification:** QS goods must be clearly identified as such in the delivery documents (e.g. delivery notes, shipping notifications, weighing slips, invoices, credit notes). This applies to	01.01.2026

Criterion	Changes	Date of change
	the physical shipment of goods as well as marketing through an agency. **Clarification:** Information about the QS status of the goods must be available at the time of physical receipt of the goods or during the outgoing goods inspection. In the case of marketing through an agency, it must be possible to trace the information on the QS status of the physically delivered goods at the agency. **Deletion:** The use of general rules between scheme participants at the wholesale and/or processing stages is no longer applicable (transitional period expired).	

Guideline
Preparation/Processing Fruit, Vegetables, Potatoes

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