

European Code to good practice for safe feed/food ingredients

Sector reference document on the collection, storage, trade and transport of safe feed/food ingredients



Sectors covered by EFISC-GTP

The following specific sector documents have been developed by the respective European sector organizations in cooperation with EFISC•GTP:

Starch Europe	Sector reference document on the manufacturing of safe feed ingredients from starch processing
FEDIOL	Sector reference document on the manufacturing of safe feed ingredients from oilseed crushing and vegetable oil refining
EBB	Sector reference document on the manufacturing of safe feed ingredients from Biodiesel processing
Coceral	Sector reference document on the collection, storage, transport and trading of feed/food ingredients (GTP)

The European Code is open to other feed/food business operators producing feed/food ingredients by the development of a sector specific document.

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Sector reference document for the collection, storage, trading and transport of safe feed/food ingredients

1 INTRODUCTION

The EU produces on average some 300 mio t cereals, 30 mio t oilseeds and 2.5 mio t protein crops. Moreover, the EU imports some 10-15 mio t cereals, 15 mio t oilseeds and 35 mio t feedstuffs. Over 20 mio t of grains are exported to third countries. The marketing of this production as well as imports and exports are done by the members of COCERAL.

COCERAL is the voice representing the European cereals, rice, feedstuffs, oilseeds, olive oil, oils and fats and agro-supply trade. The members of COCERAL are the national trade organisations of most of the EU Member States, who for their part represent collectors, distributors, exporters, importers and agribulk storers of the above mentioned commodities. The members are composed of essentially private traders and in some countries also farmers' cooperatives.

To support companies in delivering safe products, COCERAL has conducted risk assessments for the main groups of feed/food ingredients, building on the risk assessments available in the Sector Documents from FEDIOL, Starch Europe, EBB and Euromalt.

These assessments offer a tool to operators active in the collection, storage, trading and transport of feed/food ingredients for evaluation of their own feed/food safety management system. They also support these companies in their dialogue on chain control with their customers, suppliers and other stakeholders.

COCERAL stresses that companies remain responsible for providing safe feed/food ingredients and that these assessments cannot replace any of this responsibility.

The GTP Sector Document was written by and for collection, storage and trade professionals, in collaboration with the other parties concerned to help them to:



- Comply with good hygiene practices relating to operating sites, premises, equipment, transport, waste and staff.
- Identify risks which have a decisive influence on the consumer's safety and establish appropriate procedures for controlling them based on the principles of the HACCP system (hazard analysis, critical control points).
- Place on the market safe feed/food ingredients.

The present GTP Sector Document describes feed/food safety requirements for operators whose activity consists of collecting, storing trading and transporting cereals, oilseeds, protein crops and other plant products as well as by-products resulting from them intended to be used as feed/food ingredients by professional users (farmers or stock breeders), manufacturers of primary processing (maltsters, millers, feed compounders...) or other traders.

The Sector Document is not applicable to farmers with their own storage facilities. Nevertheless, farmers with storage facilities are welcome to voluntarily apply the requirements described in the present GTP Sector Document.

It neither covers the commercial characteristics beyond legal requirements of the products as they are an integral part of the contractual provisions.

1.1 Requirements for the operators feed/food safety management system

The operator shall establish, implement, document and maintain a feed/food safety management system and adopt best practices to ensure the handling and/or placing on the market of safe feed/food ingredients in line with the EFISC-GTP Code and this GTP Sector Document. (See the EFISC-GTP Code §3 “Requirements on the feed/food safety management system”).

The operator shall define the scope based on his products, the activities relating to trade, storage, collection and transport and the related locations under his responsibility (See EFISC-GTP Code §2.1 “Scope and purpose: use of this Code”).

The EFISC-GTP certified operator (scope G and F) can trade, collect, store or transport besides feed/food ingredients also technical products. Feed/food ingredients can be certified or non-certified.

The operator shall control all activities with his feed/food safety management system.

This Sector Document is built around 4 modules allowing the operator to identify the covered activities carried out.

The following modules are expanding on the specific requirements described in the EFISC-GTP Code:

- Trading
- Collection
- Storage / handling
- Transport*

* With the exception of road transport service providers the EFISC-GTP operator can certify transport only in combination with another GTP module (trading, collection, storage)

~~*Road transport activities alone cannot be certified under this Sector Document.~~

Examples:

- If the storage activity is part of the collector's activities, the collector shall also comply with the storage requirements.
- If the trading activity is part of the collector's activities, the collector shall also comply with the related requirements.
- If the transport activity is part of the collector's activities, the collector shall also comply with the related requirements.
- If the transport activity is provided independently, the transport company shall also comply with the related requirements.

2 ADDITIONAL DEFINITIONS

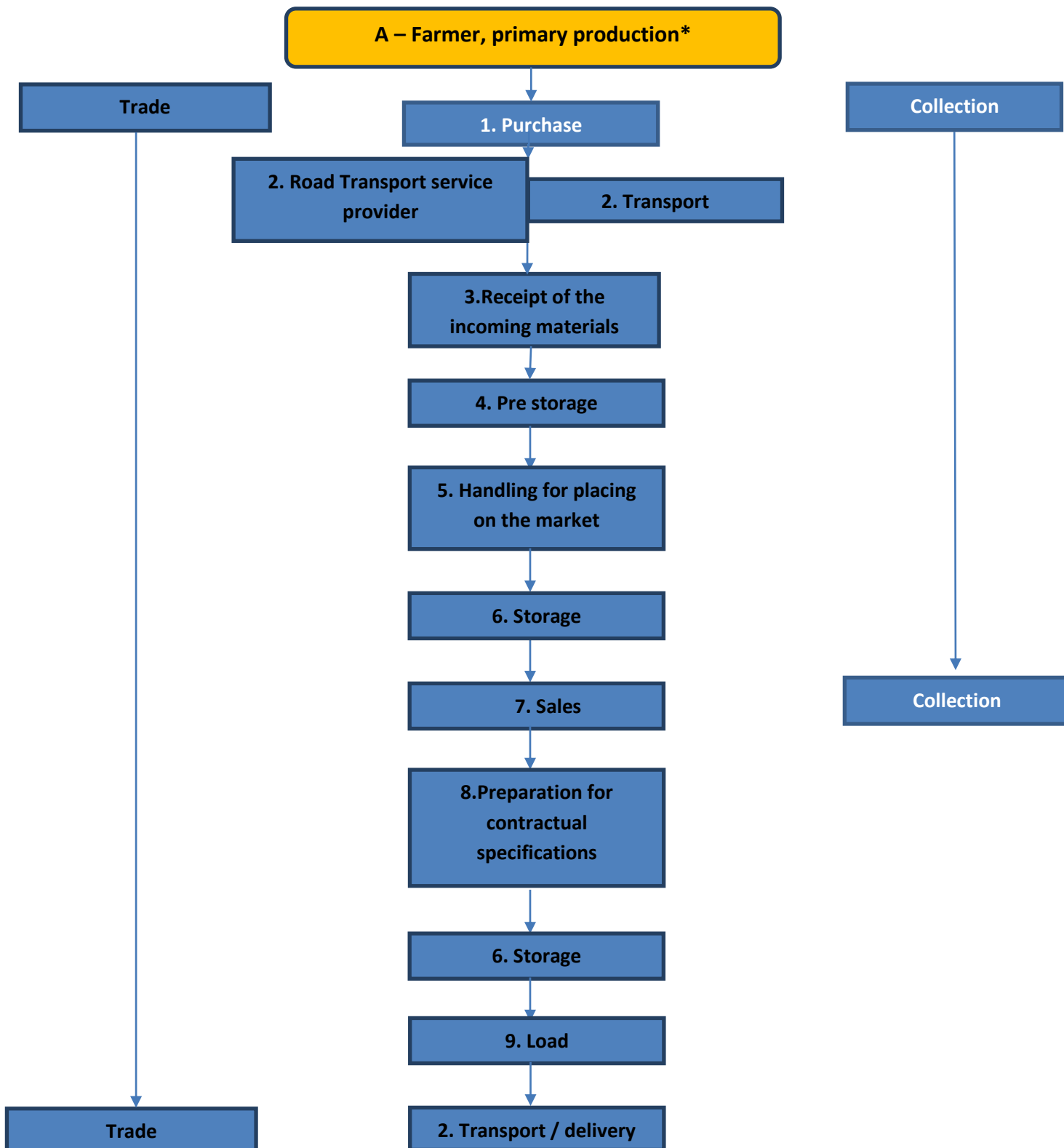
- **Anti-dust spraying:** spraying of an anti-dust agent in order to prevent dust explosion and reduce dust development, caused by the loading or de-loading of the product.
- **Bin Individualized** grain storage unit of varying capacity, in which cereals and oilseeds are stored.
- **Blending:** mixing of two or more batches of feed/food ingredients so that they lose their individual characteristics and become a uniform batch. Blending performed to dilute regulated contaminants is forbidden as EU regulated.
- **Collection (as used in this Sector Document):** Receiving section of the raw material at harvest.
- **EXW sales:** ex works, the Seller is responsible only for making the goods available at his designated premises for pick up by the buyer or buyer's designated transportation carrier. Upon release of the goods to the buyer or carrier, the seller has no further responsibilities; all costs and risks of transportation transfer to the buyer.
- **FCA sales:** free carrier (named place), the seller is responsible for handing over the goods, cleared for export, to a transportation carrier named by the buyer at a named location, typically at either the seller's facility or else the terminal of the buyer-nominated carrier or freight forwarder, typically within the country of export
- **First expired, first out (FEFO):** stock rotation system of dispatching earliest expiration dates first
- **First in first out (FIFO):** stock rotation based on the principle of dispatching earliest received products first
- **FOT or FOR sales:** "F.O.R." and "F.O.T." mean "free on rail" or "free on truck." Both refer to goods being carried by rail and should only be used when the goods are carried by rail/truck. The risk of loss or damage is transferred when the goods are loaded onto the rail/truck. **CIF sales:** cost, insurance and freight; the Incoterm (trade terms) under which the seller is responsible for arranging and paying for transportation of the goods and shipping insurance through to a named ocean or inland waterway destination port.
- **Grading:** Mechanical operation which sorts through a given species to ensure compliance with the customer's specifications (example: grading of brewing barley).
- **Handling equipment:** System used for mechanically or pneumatically moving the grain in bulk.
- **Hopper:** Small capacity bin in which goods are stored for a short time.
- **Inter-bin transfer:** Operation which consists of transferring a mass of grains from one bin to another, for example to homogenize them or to prevent solidification.

- **Nebulization:** process consisting of coating the moving grain with an extremely fine mist, it ensures the pesticide or other treatments (i.e. Dust control) to apply more consistently than with spraying of a solid.
- **Pesticide treatment:** Operation which consists of applying pesticides in solid, liquid or gas form on grains or onto the silo walls.
- **Pit:** Receipt equipment in which the grain falls by gravity.
- **Preparation for contractual specifications** preparation of the grains according to the contractual specifications (assembly, grading, cleaning).
- **Silo thermometry:** System used to measure the temperature in the mass of a bin using sensors.
- **Smell:** Abnormal odour (other than the product normal odour).
- **Sorting:** Mechanical operation which sorts between two different species (example: sorting of a batch of wheat containing rape).

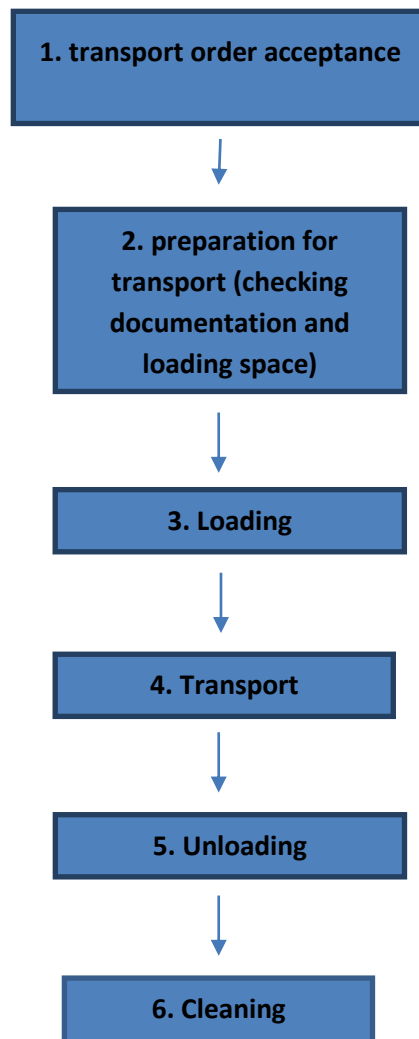
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Triticale	1.10.1								
Wheat	1.11.1 - 1.11.25								

4 FLOW DIAGRAMS

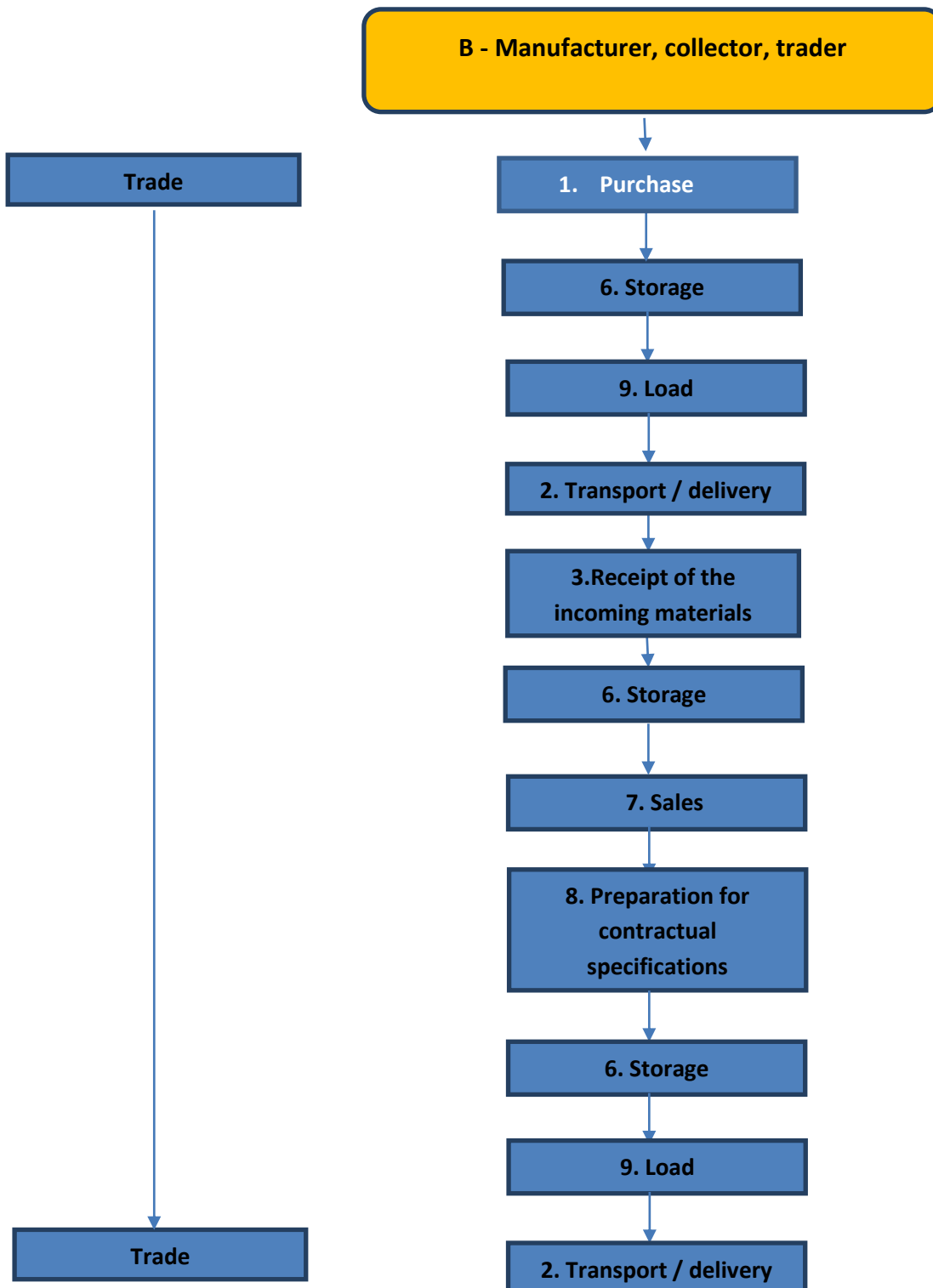
4.1 Example flow diagram A purchase from farmer - primary producer



4.1.1 Example flow diagram of a road transport service provider



4.2 Example flow diagram B: purchase from manufacturer, collector, trader



*The steps highlighted in yellow are not covered by the GTP Certification.

4.3 Description of the main steps (boxes of the flowcharts)

The flowcharts above provide an example of the process steps the EFISC-GTP operators implement during the trading – storage – collection and transport activities.

1. Flow diagram A) Purchase from the farmer / primary production

The feed/food ingredients purchased are coming from the primary production. After the application of the Entry Check Programme, the EFISC-GTP operator will become the first step in the certified chain (See EFISC-GTP Code §4.3.1.3 "*Entry check program*").

1. Flow diagram B) Purchase from a manufacturer/collector/trader

The feed/food ingredients purchased should be certified in one of the recognised schemes (see table EFISC-GTP Code Annex 3). If the products are not certified the gatekeeper procedure shall apply and the EFISC-GTP operator becomes the first step in the certified chain (See EFISC-GTP Code §4.3.1.4 "*Gatekeeper protocol*").

2. Transport

Management and execution of all activities related to the transport of feed/food ingredients from point A to point B, transported by road/river/rail or sea. ~~The EFISC-GTP operator can certify transport only in combination with another GTP module (trading, collection, storage).~~ With the exception of road transport service providers, the EFISC-GTP operator can certify transport only in combination with another GTP module (trading, collection, storage). More detailed information on transport can be found in the EFISC-GTP Code §4.3.11 "*Transport*" and GTP Sector Document §8 "*Transport module*".

3. Receipt of incoming materials

Receipt of certified and non-certified feed/food ingredients and technical products. The handling of incoming materials is implemented in line with EFISC-GTP Code §4.3.2 "*Handling of incoming materials*". A risk assessment, defined control measures and segregation of the goods shall be in place in order to minimize the risk of (cross) contamination.

4. Pre Storage

The pre-storage consists of the temporary storage of a product, before processing. (See EFISC-GTP Code §4.3.10 "*Storage*" and GTP Sector Document §7 "*Storage module*").

5. Handling for placing on the market

During this step the operator prepares the feeds/foods for placing it on the market in compliance with EU and National Legislation. This step comprehends the physical handling of the product and its processing. It includes for instance, among others, the cleaning, drying, mixing and blending steps. It addresses the preservation of the organoleptic and safety characteristics as well as reducing

risks of pest or hazards developments (See GTP Sector Document §6 "*Collection module*").

6. Storage

This step concerns the storage activity of the products in warehouses, silos, port terminals and flat stores. The product shall be stored in safe conditions in order to preserve its main characteristics and avoid developments of any hazards. (See EFISC-GTP Code §4.3.10 "*Storage*" and GTP Sector Document §7 "*Storage module*").

7. Sales

This step concerns the activity of selling goods and services either on the domestic markets (wholesale and retail), or on the international markets (import, export, warehouse). (See EFISC-GTP Code §4.3.13 "*Sales*" and GTP Sector Document §5 "*Trading module*").

8. Preparation for contractual specifications

This step concerns the final preparation of the product before the delivery. This step comprehends the physical handling of the product in order to achieve contractual compliance. (See GTP Sector Document §7 "*Storage module*").

9. Loading

This step concerns the loading of feed/food ingredients and of technical products. Loading can be performed either from a storage facility into a transport means or from a transport mean into another vehicle. (See EFISC-GTP Code §4.3.11 "*Transport*" and §4.3.10.1 "*Storage and transshipment*").



5 TRADING MODULE

5.1 General

The Trading module provides on top of the EFISC-GTP Code, additional requirements regarding feed/food safety for the trading of feed/food ingredients.

As feed business operators we find:

Merchants: shall mean a trading business, employing staff operating with a combination of storage and/or transport facilities and other supporting activities.

Desk Traders: shall mean any trader, whether or not employing staff, but with no owned storage, transport facilities and other supporting activities.

In the following text merchants and desk traders will be called "traders".

Traders are required to perform all activities to the highest standards in the trading and handling of feed/food ingredients, including imports and exports. The trader shall ensure the placing of safe feed/food ingredients on the market in compliance with the relevant EU and National legislation, the requirements in the EFISC-GTP Code and the GTP Sector Document. All activities will be documented as required by the EFISC-GTP Code §4.4.1 "*Documentation requirements*".

Traders may use suppliers of third party services (store keepers, collectors and transporters) which shall meet the requirements of the EFISC-GTP Code and this Sector Document (See EFISC-GTP Code § 4.5.1 "*Supplier relationship*") or equivalent.

The activity of the trader is buying and selling goods and services, either on the domestic market, (wholesale and retail), or, on the international market (import, export, warehouse). The operator shall send or receive a contract confirming details of the sale/purchase, including the product specification, between the operator and the contract counterpart.

The products groups tradable under the EFISC-GTP certification are listed in this Sector Document §3 "*Grouping of feed/food ingredients*".

Prior to the delivery the operator shall perform a feed/food safety risk assessment in line with the requirements in EFISC-GTP Code §4.3.1.2 "*Incoming material requirements*" and §4.5.1 "*supplier relationship*").



5.2 Operational Rules

The operator shall implement the operational rules as defined in the EFISC-GTP Code §4.3 "Operational rules". The section below provides additional requirements regarding the trading activity.

The following process steps of the flow diagrams §4.1 and §4.2 are implemented in the Trading module.

- 1. Purchase from farmer and/or trader (A and B)**
- 2. Transport/ delivery**
- 3. Receipt of feed/food ingredients**
- 4. Pre storage**
- 5. Handling for placing on the market**
- 6. Storage**
- 7. Sales**
- 8. Preparation for contractual specifications**
- 9. Loading**

5.2.1 Purchase from farmer and/or trader

The operator shall implement the purchasing requirements as required in the EFISC-GTP Code §4.3.1.1 "Requirements for purchasing". The operator shall communicate with the supplier regarding the product specification. It shall be included in the contract with the supplier, in line with the EFISC-GTP Code §6.4 "incoming material and feed/food ingredient specification". The operator shall document all purchase activities.

The operator shall ascertain the following requirements (*if applicable*):

- Compliance with EU legislation and National requirements with regard to the feed/food ingredients;
- Requirements laid down by the operator, especially with regard to the obligation of safety assurance;
- Certification status of product;
- Requirements related to the physical delivery of the product;
- Other requirements (example: additional labelling requirements)

The feed/food safety related requirements shall be communicated to all relevant staff, parties and subcontractors (traders, storekeepers, transporters).



5.2.1.1 Sourcing of feed/food products from certified sources

The desirable situation is that products demonstrably originate from a fully certified chain. Each link (from the 1st collector through the final delivery) provides the required guarantee of this situation and is therefore certified accordingly to a recognized scheme (see list of equivalent/recognized schemes in EFISC-GTP Code Annex 3).

Suppliers, and service providers shall be identified and their certification status shall always be kept updated. The actual certification status of the supplier can be found on the respective scheme owner's website. See EFISC-GTP Code §4.5.1 "*Supplier relationship*".

5.2.1.2 Sourcing of feed/food products from non-certified sources

Where non certified crops are purchased a full auditable trail of all non-certified products shall be retained.

Suppliers and service providers shall be identified and evaluated in line with the EFISC-GTP Code § 4.3.1.1 "*Requirements for purchasing*" and §4.5.1 "*Supplier relationship*").

Suppliers of processed feed/food ingredients should be certified in compliance with EFISC-GTP or one of the **recognized** standards within 18 months after the first purchase.

A strict segregation of the non-certified products shall be in place in line with the EFISC-GTP Code §4.3.9 "*Handling of non-certified feed/food and non-feed/food ingredients*".

5.2.1.3 Sourcing of non-feed/food products (for technical use)

Where crops for technical purpose are purchased and sold a full auditable trail of all products shall be retained.

A strict segregation of the products shall be in place in line with the EFISC-GTP Code §4.3.9 "*Handling of non-certified feed/food and non-feed/food ingredients*".

5.2.2 Transport / delivery

The operator shall implement the transport and unloading requirements as defined in the EFISC-GTP Code §4.3.11 "*Transport*" and the GTP Sector Document §8 "*Transport Module*".

The operator shall communicate to the carrier the transport requirements in order to comply with the requirements for transport.



5.2.3 Receipt of feed/food ingredients

The operator shall implement the requirements as defined in the entry check programme or gatekeeper protocol (See EFISC-GTP Code §4.3.2 "*Handling of incoming materials*").

Materials which do not conform to relevant specifications shall be handled under a documented procedure in order to ensure prevention from unintended use (See EFISC-GTP Code §4.4.4 "*Control of non-conforming product*").

5.2.4 Pre storage

The operator shall implement the requirements as defined in the EFISC-GTP Code §4.3.10 "*Storage*" and the GTP Sector Document §6 "*Collection module*" and §7 "*Storage module*").

5.2.5 Handling for placing on the market

The operator shall prepare the feeds/foods for placing on the market in compliance with EU and National Legislation, the requirements in the EFISC-GTP Code and this GTP Sector Document.

The operator shall ensure the safe physical handling of the product and its processing. The trader shall define and implement the necessary measures to ensure the preservation of the organoleptic and safety characteristics as well as reducing risks of pest or hazards developments.

5.2.6 Storage / handling

The operator shall implement the requirements as defined in the EFISC-GTP Code §4.3.10 "*Storage*" and GTP Sector Document §7 "*Storage module*").

The operator shall define, based on a risk assessment, procedures to ensure safe storage conditions for the feeds/foods and implement the requirements for the storage activity of the products in warehouses, silos and ports terminals. The product shall be stored in safe conditions in order to preserve its main characteristics and avoid developments of any hazards.

5.2.7 Sales

The operator shall document and ensure traceability for his activity of selling goods and services either on the domestic markets (wholesale and retail), or on the international markets (import, export, warehouse), certified, non-certified feed/food ingredients and/or for technical products.

Specifications for the feed/food ingredients shall be agreed between the operator and the customer in a contract. The operator shall ensure that all feed/food ingredients are in compliance with the contract and the requirements in this Code (see EFISC-GTP Code §4.3.13 "*Sales*"). All sales activities shall be documented.



Labelling: under the EFISC-GTP certification the operator shall implement the requirements on labelling (See EFISC-GTP Code §4.3.8 "*Delivery of feed/food ingredients – labelling and accompanying documents*") in compliance with EU and National legislation.

Exemption on the labelling requirements: If the feeds/foods are placed on the market in a non EU country the labelling requirements of that specific country shall apply. Note that all other relevant EU legislation applies under the EFISC-GTP certification.

5.2.8 Preparation for contractual specifications

The operator shall define, document and implement the requirements for the handling of the feed/food ingredients in order to achieve contractual compliance, while respecting feed/food safety requirements (See GTP Sector Document §7 "*Storage module*").

5.2.9 Loading

The operator shall define, document and implement the requirements regarding the loading of feed/food ingredients and technical products as required in the EFISC-GTP Code §4.3.11 "*Transport*" and GTP Sector Document §8 "*Transport module*". If there are no specific customers' requirements a stock rotation system will be used (FIFO/FEFO).



6 COLLECTION MODULE

6.1 General

The collection module provides on top of the EFISC-GTP Code additional requirements regarding feed/food safety for the collection of feeds/foods.

The collector collects the products from the farmers in the primary production and prepares them for the placing as feed/food/technical ingredients on the market. The collectors can provide storage, drying, preparation, packaging and transport in view of satisfying the commercial requirements of the contract and allowing the use of the ingredient for feed/food/non feed/ uses.

The requirements as described under trading also apply for the collector, as applicable. The following requirements are additional for the collector's activity.

6.2 Operational rules

The operator shall implement the operational rules as defined in the EFISC-GTP Code §4.3 "Operational rules". The section below provides explanation or additional requirements regarding the collection activity.

The collection activity can cover the process steps below of the flow diagrams §4.1 and §4.2 of this Sector Document:

- 1. Purchase from farmer (A)**
- 2. Transport/ delivery**
- 3. Receipt of feed/food ingredients**
- 4. Pre storage**
- 5. Handling for placing on the market**
- 6. Storage**
- 7. Sales**
- 8. Preparation for contractual specifications**
- 9. Loading**

6.2.1 Purchase from farmer and/or trader

The operator shall implement the purchasing requirements as required in the EFISC-GTP Code § 4.3.1.1 "Requirements for purchasing".

Farmers in the primary production shall be informed on the purchase requirements and product specification. The supplier and purchaser shall agree on the product specification. This shall be documented. See EFISC-GTP Code §4.5.1 "Supplier relationship".

When purchasing directly from farmers in the primary production the incoming material can be assessed by product and region as the suppliers could be numerous.



6.2.2 Transport/ delivery

The operator shall implement the transport requirements as defined in the EFISC-GTP Code §4.3.11 "*Transport*" and the GTP Sector Documents §8 "*Transport Module*".

A collector usually buys non processed products from farmers. Goods are either delivered directly by the farmers to the collector's stores or transported from the farms to the collector's stores (owned or rented) by vehicles of the collectors or from a transport service provider contracted by the collector.

The operator shall communicate to the carrier the transport requirements in order to comply with the requirements for transport.

6.2.3 Receipt of feed/food ingredients

On reception of the products, the operator shall carry out an entry inspection. He shall verify that the products received comply with the requirements/specifications (See EFISC-GTP Code §4.3.2 "*Handling of incoming materials*").

The operator shall check that the transport complies with the stated requirements (minimum check on the application of ICRT-IDTF rules for road transport, certification of the carrier, compliance with the requirements with respect to loading sequence, previous loads and implementation of the necessary cleaning regimes).

This is not applicable to farmers having their own transport means. However a visual check of the cleanliness of the farmers transport means and loading compartment will be made.

Incoming crops shall be evaluated for the presence of hazards. When products are received, for each individual delivery operators shall implement the entry check program as defined by the EFISC-GTP Code §4.3.1.2 "*Incoming materials requirements*", among other:

- Identify the delivery (provider, product etc.) and record it;
- Ask whether post-harvest pesticide treatments have been applied to the grains prior to the delivery to the storekeeper's premises;
- Sample according to sampling program;
- Carry out an olfactory and visual inspection of the delivered batch to detect the potential presence of a bad smell, insects, foreign bodies, etc.;
- Check the product condition as required by the principle (such as moisture) of the delivered batch and record it and dry if appropriate;
- Set criteria for classifying and allocating the products received.
- Define corrective measures if applicable.

See EFISC-GTP Code Table 2 EFISC-GTP *flow diagram monitoring scope F & G*.²

Guidance to farmers (Good Agricultural Practices)

- The collector should communicate with the farmers in the primary production on Good Agricultural Practices and GHP.
- Farmers should be reminded of their obligations regarding the internal and external cleanliness of the transport used to carry goods covered under the scope of the EFISC-GTP certification. They should also be reminded of the importance to maintain records especially if the mean of transport has to be cleaned after a previous transportation of a product other than cereals or oilseeds.
- Farmers should be advised to adhere to the recommendations contained in the good hygiene practices guide or guides for arable crops, particularly regarding rules on cleaning and succession of transport, reference is made to EU and/or national guides on arable crops which are already published.

Pesticide management [MVO-Coceral brochure link](#)

Farmers should be provided guidance on the use of pesticides:

- Make sure that the safety intervals of all chemicals applied on the crop are respected. Otherwise residues from those chemicals will remain in the seeds and it will not be possible to sell them, since these seeds will not be compliant with EU regulation No. 396/2005.
- Make sure that when spraying chemicals on the crops, recommended doses are followed. Spraying higher doses than recommended, will lead to high levels of pesticides in the harvested seeds, which will lead to no compliance with EU MRLs.
- Make sure that transport vehicles are completely clean when transporting the seeds, so that these are not contaminated with chemicals or other toxic substances that might have been transported before in the same vehicle.
- Storage of chemicals on the farm should be far from the grain and seed storage. It should be completely sealed to avoid leakage.
- Make sure that any kind of fertilizers, oils or electric fluids are separated from the grain and seed storage.
- Make sure that seeds aimed to be used for sowing, are separated from those aimed to be sold, avoiding any contamination with pesticides

6.2.4 Pre-storage

The operator shall implement the requirements as defined in the EFISC-GTP Code §4.3.10 "Storage" and GTP Sector Document §6 "Collection module" and §7 "Storage module").

The objective of the pre-storage is to adjust the inflows in line with the drying capacities, while limiting the risk of alteration to the grain before final storage.

The operator shall define and apply monitoring parameters for the pre-storage of the incoming material based on a risk assessment (for example, duration, temperature, humidity, storage conditions and wetter).

Guidance for the pre-storage activities

The storage of grains can only be controlled if their moisture content is sufficiently low. The moisture content must be lower than commercial standards: 15% for maize, common wheat and barley, 14,5% for sorghum, 14% for durum wheat, peas and soybeans, 9% for sunflower and rapeseed. Grains received with higher moisture content must be dried to prevent deterioration of their quality during storage. Maize and sorghum are commonly dried artificially.

After harvest, wet grains in temporary storage might develop biological activity that will quickly alter their feed/food safety and technological properties leading to loss of dry matter.

Mould present on the grain in the field can, during the pre-storage, produce mycotoxins that won't be eliminated by heat during the drying process. In addition pre-stored maize will be more easily degraded by the heat during the drying process.

It is considered that for maize received with a moisture content of 35% and pre-stored for 48 hours, shall be dried using a reduced air temperature of 20 ° C. to obtain the same quality as dry grain. Over 48 hours of pre-storage maize will considerably lose in quality.

Pre-storage for sunflower shall not exceed 24 – 36 hours.

In pre-storage silos before drying, conventional cooling ventilation, with a specific flow rate of 10 to 20 m³ of air per hour and per cubic meter of grain, is insufficient to cool the grain; On the contrary, by supplying oxygen, it activates biological reactions and accelerates the rise in temperature which can thus reach up to 60 ° C.

When not ventilated, carbon dioxide naturally released from the grain gradually replaces oxygen, which reduces biological activity in the grain and consequently the release of heat.

Any drying facility must be equipped with a pre-cleaner or a trowel before the dryer.



6.2.5 Handling for placing on the market

The collector prepares the products prior to placing it on the market by ensuring the preservation of its organoleptic and safety characteristics as well as reducing risks of pest or hazards developments.

This step comprehends the physical handling of the product and the following processes can be part of it:

- *Mixing*: put together two or more batches of the same type of feed/food ingredients so that they may lose their individual characteristics and become a uniform batch. Blending performed to dilute regulated contaminants is forbidden as EU regulated;
- *Chopping*: Reduction of particle size using one or more knives;
- *Cleaning*: Removal of objects (contaminants, e.g. stones) or vegetative parts of the plant e.g. unattached particles of straw or husks or weeds;
- *Decortication*: Complete or partial removal of outer layers from grains, seeds, fruits, nuts and others;
- *Dehulling*: Removal of the outer skins of beans, grains and seeds usually by physical means;
- *Drying*: Dehydration by artificial or natural processes ;
- *Fragmentation*: Process of breaking a feed material into fragments;
- *Filtration*: Separation of a mixture of liquid and solid materials by passing the liquid through a porous medium or membrane;
- *Nebulisation*: process consisting of coating the moving grain with an extremely fine mist, it ensures the pesticide or other treatments (i.e. Dust control) to apply more consistently than with spraying of a solid.
- *Sieving*: Separation of particles of different sizes by passing feed materials through screen(s) while being shaken or poured;
- *Ventilation*: process of circulating an air flow by mechanical or natural means through a product in order to cool or dry it or reduce its moisture level;
- Or other activities as sorting, bagging or PPP treatments

6.2.6 Storage, Sales, Preparation for contractual specifications and Loading

See GTP Sector Document §5 "Trading module".



Guidance for drying of grains and oilseeds

The operator shall define, apply and record the parameters for the control and monitoring of drying operations. The objective of the drying is to bring the grains and/or oilseeds to a moisture level that allows it to remain well preserved during storage, while maintaining its technological properties.

Dryer design and source of energy shall be adapted to its use and avoid risk of product contamination.

Drying equipment shall be regularly maintained in line with the manufacturer's instructions by competent staff to ensure that the burners are operating efficiently.

Preferable indirect drying should be used. If combustion gasses are used for drying, the fuel type shall be safe for feed/food, based on a risk assessment.

Drying activity might cause an increased risk for dioxin alike contamination. Therefore the operator shall define the requirements for dioxin monitoring based on his risk assessment.



7 STORAGE MODULE

7.1 General

The Storage module provides on top of the EFISC-GTP Code, additional requirements for feed/food safety regarding the storage of feed/food ingredients as performed by storekeepers acting as a service provider for the trader

The requirements as described under trading also apply for the storekeeper, as applicable. The following requirements are additional for the collector's activity.

The storekeeper's responsibility is limited to the storage and transshipment activity.

The responsibility for the feed/food ingredients lies with the client or the owner.

The storekeeper shall manage and execute all activities related to handling, storing and transshipment of feed/food ingredients and technical products at the storage facilities, (port, silos, warehouses and flat stores).

The storage operations can be made using installations owned by the operators or via the use of contracted service providers.

Amongst other:

- the storekeeper shall comply with the relevant requirements in the EFISC-GTP Code and this GTP Sector Document;
- the storekeeper's responsibility is to maintain the feed/food safety and the contractual compliance of the products to be placed on the market as defined and agreed with the owner of the goods;
- the storekeeper receives from the owner of the goods the feed/food safety related information and instructions in order to assure a proper storage. The information should enable the storage keeper to make a risk assessment and define the proper storage conditions;
- the storekeeper has the technical possibility to perform different activities of "cleaning, sorting, drying " etc.;
- the storekeeper is a service provider and is never becoming the owner of the goods;
- the storekeeper reports to the owner of the goods;
- the monitoring shall focus on the storage and transshipment conditions.



7.2 Operational rules

The operator shall implement the operational rules as defined in the EFISC-GTP Code §4.3 "*Operational rules*". The section below provides explanation and/or additional requirements regarding the storage activity.

Process steps of the flow diagrams §4.1 – §4.2 involved in the Storage module

1. Purchase from farmer and/or trader (1.A and 1.B)
2. Transport/ delivery
- 3. Receipt of feed/food ingredients**
4. Pre storage
5. Handling for placing on the market
- 6. Storage**
7. Sales
- 8. Preparation for contractual specifications**
- 9. Loading**

7.2.1 Receipt of feed/food ingredients

Products could be delivered by different vehicles like seagoing vessels, barges, railcars and trucks.

Before arrival of the goods at the terminal, the terminal is to be informed by the cargo owner about the description and characteristics which are necessary for the terminal, particularly when the goods are to be taken into storage for a longer period and when the goods do not comply with the principle of sound and non-dangerous.

Aspects which influence a safe working area for the staff in and around the compartments should also be part of the information flow to the terminal, for instance in case of fumigation of the goods, during transport or before, this information has to be provided, including the fumigant used.

Upon arrival of the goods at the terminal, a visual condition check is carried out by the terminal before the goods physically enter the terminal. The previous three loads shall be checked against the list of the IDTF and documented

A first visual and physical check shall be performed in line with EFISC-GTP Code §4.3.2 "*Handling of incoming materials*", amongst other:

- Conformity of the goods with the pre-advised description (to be seen in the light of – when soya meal is agreed; is it meal and not pellets, nor corn meal)
- Color
- Physical form
- Odor
- Possible contamination by insects, dirt or other items which do not belong to the product
- Temperature
- Moisture resulting in damp/mould



Should the terminal operator have doubts on the condition of the goods, he shall be entitled to take the appropriate corrective actions in agreement with the owner of the goods.

Samples and analysis should be performed, based on a risk assessment. Methods of sampling should be done in accordance with the European law. Samples should be stored as per country-specific requirements. See EFISC-GTP Code § 4.4.3 *“Inspection, sampling and analysis”*.

7.2.2 Storage

The general storage requirements are described in the EFISC-GTP Code §4.3.10 *“Storage”*.

Gasoline – or diesel powered equipment should not be used in feed/food ingredient storage areas.

7.2.2.1 Segregation of products

Segregation shall be in place between feed/food/technical and certified/non-certified products (See EFISC-GTP Code §4.3.9 *“The handling of non-certified feed/food ingredients in collection, trade, storage and transport”*).

If certified and non-certified crops are mixed for storage, the whole batch has to be considered non-certified. This has to be documented.

The running of the empty chain conveyors, band conveyors and elevators after every batch of product may be considered as an adequate procedure to clean the transit line between different products/products with a different certification status. See EFISC-GTP §4.3.4 *“Measures for the prevention of cross contamination”*.

7.2.2.2 Store monitoring

The storekeeper shall, based on a risk assessment, make checks on the defined storage conditions to each store of goods. The findings shall be documented and in case of abnormalities, communicated to the owner of the goods. Corrective actions shall be defined and recorded.

7.2.2.3 Pesticides treatment

The storage keeper shall define and document the working methods for the use of pesticides in order to avoid contamination in line with EU and National legislation. See the [EU pesticides database](#) for the products and MRL's. Storekeepers shall confirm that the pesticides and fumigants used are also approved by the owner of the goods.



Guidance for the storage keeper on the use of pesticides

The operator shall take the following guidance on pesticides treatment in to account:

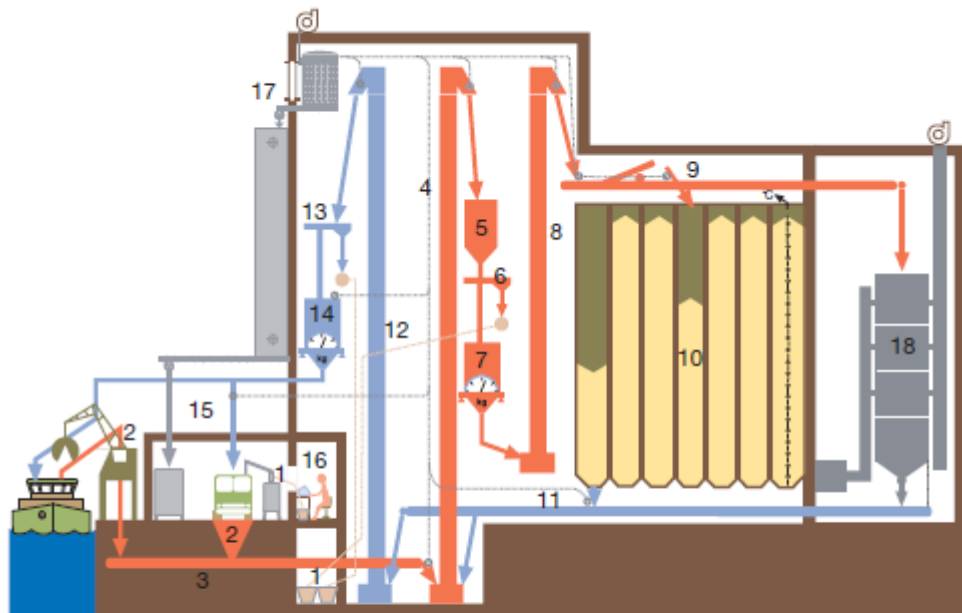
- Silos have to be well designed to avoid the penetration of water and the entrance of rodents. Make sure there is no leakage that could cause stored grain or seeds to be contaminated.
- Clean the internal walls of the silo each time a different seed or grain is going to be stored in order to avoid cross contamination. Cleaning of internal walls of a silo is crucial in case the last product stored has been grain or seed that has been treated with chemicals.
- Clean conveyor belts (redlers, belts etc.) whenever there is a change in the commodity, especially when seed or grain treated with a pesticide has been moved through it.
- Storage pesticides are only allowed for cereal treatment and not for oilseeds. . Insects rarely target oilseeds, so there is no need for protection. In third countries phosphine can be used as pesticide for the storage of oilseeds, however it is forbidden for use in the EU.
- In case a pesticide treatment is necessary for stored cereals, there should be a register sheet. This ensures that any possible problem during the operation can be traced throughout the supply chain, starting from the farmer. This register should include: date, time of treatment, reason of the treatment, type of treatment, kind of chemicals used, dosage rate, redlers cleaning after treatment and the signature of operator.

In the event of having spraying equipment in the storage facilities for cereal protection: before sunflower or any other oilseeds are transported through the redlers, check systematically the following items: previous grains have been removed from belts/redlers, redlers/conveyor belts have been cleaned and any residue of pesticide has been removed, the spraying equipment is switched off, the nozzles do not leak over the belts/redlers. Documented evidence of these checks shall be available.



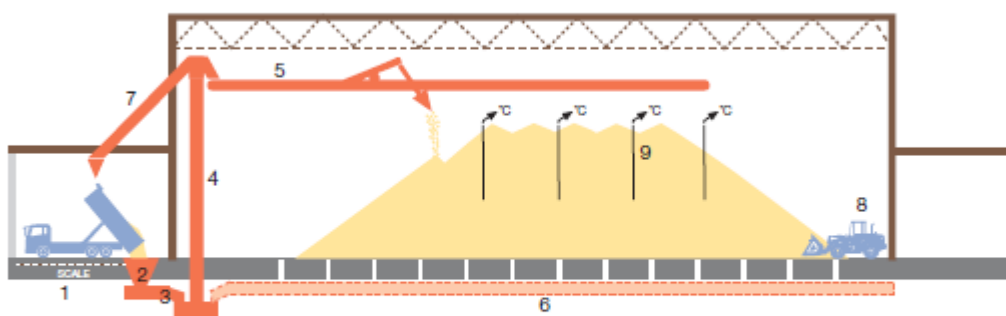
Picture 1 & 2 Grains storage examples

Silo storage diagram



- | | | |
|-----------------------------------|--|----------------------------------|
| 1 Samples, analysis, visual tests | 9 Intake conveyor | 15 Loading into truck/train/ship |
| 2 Truck/train/ship unloading | 10 Storage bins and temperature control | 16 Control room |
| 3 Intake conveyor | 11 Outloading conveyor | 17 Grain dust collection system |
| 4 Intake elevator | 12 Outloading elevator | 18 Grain dryer |
| 5 Pre-cleaner | 13 Automatic sampler, analysis, visual tests | |
| 6 Automatic sampler | 14 Outloading weighing | |
| 7 Intake weighing | | |
| 8 Silo elevator | | |

Flat storage diagram



- | | |
|--------------------------------|------------------------|
| 1. Scale | 6. Outloading conveyor |
| 2. Intake bin | 7. Loading into truck |
| 3. Intake conveyor 1 | 8. Shovel loader |
| 4. Intake and loading elevator | 9. Temperature control |
| 5. Intake conveyor 2 | |



7.2.3 Preparation for contractual specifications

The operator shall prepare the feed/food ingredient for placing it on the market in compliance with EU and National Legislation, the requirements in the EFISC-GTP Code and this Sector Document and the contractual requirements. See also the Collection Module of this Sector Document.

This step concerns the final preparation of the product before the delivery. The operator shall ensure the safe physical handling of the product and its processing. The trader shall define and implement the necessary measures to ensure the preservation of the organoleptic and safety characteristics as well as reducing risks of pest or hazards developments

The HACCP risk assessment shall consider the risks linked to the handling of the feed/food ingredient. This step, as the handling step, comprehends the physical handle of the product with processes like:

- *Mixing*: put together two or more batches of the same type of feed/food ingredients so that they may lose their individual characteristics and become a uniform batch. Blending performed to dilute regulated contaminants is forbidden as EU regulated;
- *Grading*: Mechanical operation which sorts through a given species to ensure compliance with the customer's specifications (example: grading of brewing barley).
- *Chopping*: Reduction of particle size using one or more knives;
- *Cleaning*: Removal of objects (contaminants, e.g. stones) or vegetative parts of the plant e.g. unattached particles of straw or husks or weeds;
- *Decortication*: Complete or partial removal of outer layers from grains, seeds, fruits, nuts and others;
- *Dehulling*: Removal of the outer skins of beans, grains and seeds usually by physical means;
- *Drying*: Dehydration by artificial or natural processes;
- *Fragmentation*: Process of breaking a feed material into fragments;
- *Filtration*: Separation of a mixture of liquid and solid materials by passing the liquid through a porous medium or membrane;
- *Sieving*: Separation of particles of different sizes by passing feed materials through screen(s) while being shaken or poured;
- *Labelling*: attaching specific information's on the characteristics or uses of the products so that traceability can be improved or to comply with regulation or other contractual obligations.
- *Homogenization*: is the mixing of a parcel of grains in order to have a homogeneous batch of grain
- Or other activities as sampling, *sorting, bagging or PPP treatments*;

7.2.4 Loading

See GTP Sector Document §5.2.9 "Loading".



8 TRANSPORT MODULE

8.1 General

The Transport module provides on top of the EFISC-GTP Code, additional feed/food safety related requirements for the transport of feed/food ingredients.

The requirements as described under trading also apply for the transporter, as applicable. The following requirements are additional for the transporter's activity.

The general transport requirements are highlighted in the EFISC-GTP Code §4.3.11 "*Transport*".

The transport module addresses the management and execution of all activities related to the transport of feed/food ingredients from point A to point B, transported by road/river/rail or sea.

The operator shall have a system which effectively records and communicates information regarding the customer's delivery/collection requirements. The operator shall be able to demonstrate that the certification status of the feed/food ingredient is maintained during the allocation/delivery process.

8.2 Operational rules

The operator shall implement the operational rules as defined in the EFISC-GTP Code §4.3 "*Operational rules*".

The section below provides explanation and/or additional requirements regarding the transport activity.

Process steps of the flow diagrams §4.1 and §4.2 involved in the transport module:

1. Purchase from farmer and/or trader (1.A and 1.B)
- 2. Transport/ delivery**
3. Receipt of feed/food ingredients
4. Pre storage
5. Handling for placing on the market
6. Storage
7. Sales
8. Preparation for contractual specifications
- 9. Loading**

APPENDIX FOR ROAD TRANSPORT AS A SERVICE PROVIDER (SEE DIAGRAM 4.1.1)

1. Transport order acceptance

This step concerns all activities prior the transportation by a road transport service provider of feed/food ingredients and technical products.

2. Loading

This step concerns the loading of feed/food ingredients and of technical products into a vehicle

3. Transport

Management and execution of all activities related to the transport of feed/food ingredients from point A to point B, transported by road. More detailed information on transport can be found in the EFISC-GTP Code §4.3.11 "Transport" and COCERAL Sector Document §8 "Transport module".

4. Unloading

This step concerns the unloading of feed/food ingredients and of technical products out of a vehicle

5. Cleaning

This step concerns all activities concerning the removal of all remains of previous loads from the load compartment of a vehicle. Refer to IDTF website or to a specific risk assessment.



8.2.1 Transport/delivery

The operator shall be in compliance with the requirements defined in the EFISC-GTP Code §4.3.11 "Transport".

The operator shall take the necessary measures to assure the safe transport of feed/food ingredients and avoid contamination.

Procedures shall be in place to assure that transport means (vehicles, conveyances and containers) are maintained in good conditions.

The operator shall ensure that the loading compartments are covered during transport. Penetration of rainwater, contamination by the excrement of birds or other forms of contamination of the loading compartments shall be prevented even if the loading compartment is empty.

After discharge the operator shall visually check the loading compartment for remains of the load. The operator shall remove the load remains and perform any necessary cleaning operations (see point 8.2.2.3 – Cleaning of the hold before loading).

The Operator can rely on an external cleaning service provider and present documents from them if relevant (cleaning procedure, effectiveness, ...). According to what is stated in the paragraph 4.4.3 of the EFISC-GTP code, in case the Operator responsible for transport (certified against the transport only) does not have sufficient information and data available in order to establish cleaning procedures on the basis of risk assessment for different transport combinations (example between feed to food transport, between allergen containing food material to allergen free food transport), the performing of validations on specific targets is strongly advised: evidences shall be kept available for the auditor. Effectiveness of cleaning must be checked at least visually.

8.2.2 Transport via inland waterway, by sea and by train

The operator shall be in compliance with the requirements defined in the EFISC-GTP Code §4.3.11 "Transport" and more specific §4.3.11.5 "Waterborne and rail transport".

Boat men and wagon drivers shall present a logbook listing their successive transports (type and nature of goods, type and date of cleaning carried out). For the description of the goods (nature and type), the IDTF number of the products shall be used.

The hold, hatch covers and hatches of the ships (sea or ocean vessels or barges) used to transport products shall be clean, watertight, dry, odorless, and in perfect maintenance condition.

For trains, transport of feed/food materials in bulk should only be made with wagons that are exclusively intended for transporting raw or semi-processed

agricultural products. Such wagons shall be clean, watertight, dry, odorless, and in perfect maintenance condition. In the event of transport by rail, the three previous loads and the last cleaning operation shall be recorded.

Before loading the products, operators using a ship (sea or ocean vessel or barges) approved for transporting their products shall be informed about the three previous loads and the cleaning procedure applied for the last cargo.



8.2.2.1 Requirements regarding the Loading Compartment Inspector (LCI)

The operator shall inspect the load compartments of waterborne and rail transport in line with the EFISC-GTP Code §4.3.11.6 *“Inspection on loading of waterborne and rail transport”*

The EFISC-GTP operator who issues an order for an Load Compartment Inspection shall supply the loading inspector with all needed instructions to fulfill the defined controls and reporting’s into the LCI in order to enable a correct identification and traceability of the cargo (name, date, location, quantity, shipper, consignee, destination, contact details, BL N^o, etc.) and information’s such as:

- the results of the visual inspection of each load compartment (LC) , aimed to assess its suitability its suitability for the storage and the transport of the goods to be loaded,
- ensure that the load compartments are clean, empty, dry, and odorless
- assess the absence of residues and of any unfriendly elements that could contaminate the cargo,
- verify the absence of insects and vermin (dead or alive)
- check that the LC are closable and in good conditions so that the cargo can be transported correctly and against outside influences
- describe any non-conformities and corrective actions
- mention at least, for each hold, the last three previous loads and the cleaning operations performed after them:

The LCI report shall be unambiguous and contain the information which is relevant for the acceptance of the load compartment. The LCI should be signed by the Inspector and by the master or his representative.

The findings of this LCI Report shall be made known to the EFISC-GTP operator as quick as possible after completion.



8.2.2.2 Requirements on the use of certified/non-certified barges

When products are directly transported via inland waterway to an operator certified against a scheme requiring the mandatory use of certified barges (e.g. GMP+, FCA/Ovocom) the EFISC-GTP operator shall make use of a certified barge.

However certified barges are not always available on certain inland waterways. In the situation that certified barges are not available the EFISC-GTP operator shall:

- In agreement with his customer, request written authorization from the relevant scheme owner for the use non-certified transport.
- Request the barge's owner in writing to initiate without delay the implementation of a relevant inland waterway transport certification within 18 months.
- In case of delivery to an EFISC-GTP certified customer the EFISC-GTP operator can make use of non-certified transport under the condition that an LCI combined with the application of the correct cleaning procedures for the last previous cargo is implemented. This will be documented.

8.2.2.3 Cleaning of the hold before loading

The operator shall perform the cleaning in line with the requirements in the EFISC-GTP Code §4.3.11 "Transport".

The loading compartment shall be checked regarding the three previous loads and the requirements on cleanliness in accordance with EFISC-GTP Code §4.3.11 "Transport" and operator risk assessment. The defined cleaning protocol will be applied in line with §8.2.2.3 of this Sector Document. The control shall be documented.

Cleaning and, if necessary, disinfection shall take place before loading the feed/food ingredients. Based on the three previous loads the cleaning regime will be defined, implemented and documented.

For feed road transport the operator shall put into practice the relevant requirements and the prescribed working method as defined in the [International Database Transport for Feed \(IDTF\)](#). Each product in the database is allocated a unique IDTF number and can be cross referenced with common product names. Procedures are available for the re-instatement of load compartments in some circumstances following the carriage of forbidden materials. These involve

treatment of load spaces on a risk assessed basis and independent verification.



After each cleaning, at least a visual inspection shall be carried out. Each cleaning program drawn up for a certain loading compartment shall be checked for effectiveness.

If the loading compartment is used for repeated transport of the same food or feed then it is permissible to establish by way of a hazard analysis the suitable cleaning frequency.

8.2.3 Use of the IDTF

In the majority of cases the members of the [International Committee Road Transport \(ICRT\)](#) agree on the appropriate cleaning regime following carriage of listed goods or materials, however in some cases this is not achievable, perhaps due to national legislation. In such cases this appears as a "List of Differences" and the requirements of the individual scheme(s) are listed.

The requirements of the scheme into which the goods are being delivered should be followed in such circumstances.

Guidance on the cleaning methods ([IDTF](#))

Any surface which comes into contact with food or feed shall be clean. The categories for classification and cleaning of load compartments are:

A - Dry Cleaning

In most cases where the material is dry, thorough brushing or vacuuming is sufficient, however if the material is caked or damp washing will be necessary.

B - Cleaning with water

Washing with hot water (70-80c) is recommended wherever possible. Where this is not practically possible cold water may suffice. All surfaces shall be dry before handling or coming into contact with goods.

C - Cleaning with water and a cleansing agent

Washing with a hot water (70-80c) solution of any combined food grade cleansing agent (food grade sanitiser/ disinfectant) diluted in accordance with manufacturer's recommendations. All surfaces shall be dry before handling or coming into contact with goods.

D - Cleaning and disinfection

Pressure clean with a hot (70-80c) solution of any combined food grade sanitiser/disinfectant diluted in accordance with manufacturer's recommendations. All surfaces shall be dry before handling or coming into contact with goods.

Forbidden/Excluded: Goods not allowed to be carried. NB: under the IDTF

rules unclassified goods are forbidden for carriage.

Additional cleaning options:

Steam Cleaning and Disinfecting

Where appropriate following a risk assessment, compartments and surfaces may be steam cleaned and treated with an approved non-phenolic food grade disinfectant. All surfaces shall be dry before handling or coming into contact with goods.

Infested goods

Where infested goods have been transported, handled or stored and it is not possible or feasible to fumigate or spray and allow sufficient time for the treatment to be effective, all surfaces, including vehicle sheets, shall be thoroughly steam cleaned. All surfaces shall be dry before handling or coming into contact with goods.

The use of smoke bombs is not effective and is not recommended.

The minimum level of cleaning required by the IDTF shall be applied after carriage of the goods/materials. However following a risk assessed approach, in some circumstances additional cleaning may be required.

Cleaning applies to the load compartment, the underside of cover sheet and any other surface that may come into contact with the goods being transported. All shall be drained and dry before re-loading.

8.2.4 Loading of the feed/food ingredients

The operator shall perform the loading in line with the requirements in the EFISC-GTP Code §4.3.11 "Transport".

Feed/food ingredients shall (in combined transports) not become mixed together with other products and/or different certification status. Effective separation of the products shall be ensured by the operator. The load compartment must be clearly identified and labelled. The measures applied will be documented (See EFISC-GTP Code §4.3.9 "The handling of non-certified feed/food ingredients in collection, trade, storage and transport").

9 METHODOLOGY OF THE GTP FEED/FOOD SAFETY CHAIN RISK ASSESSMENTS

9.1 Overview on product/service groupings subject to feed/food safety chain risk assessment

- cereals and products derived thereof
- oilseeds and products derived thereof
- legume seeds and products derived thereof
- tubers, roots and products derived thereof
- other products and products derived thereof
- transport provided by a road service provider

9.2 How Coceral conducted the chain risk assessments

Coceral followed the methodology as described in the EFISC-GTP Code §6 "HACCP system".

Per product grouping, COCERAL GTP assessed the hazards in the process steps as described in the flow diagrams (§4.1 and §4.2) in order to provide guidance to the trader in his risk assessments.

1. Per chain element, COCERAL GTP described the feed/food safety hazards that can reasonably be expected to occur at that point in the chain, provided no safety measures are in place. A safety hazard is a biological (B), chemical (C) or physical agents (P) in, or condition of, a product that makes it injurious to human or animal health.
2. In the elements of the chain that cover agricultural activities such as the cultivation of crops, the control of hazards is the responsibility of the operators active in that part of the chain. This is why the hazards occurring there were only identified, but their risks were not further assessed (no chance and seriousness assessment). The hazards appearing in the COCERAL GTP risk assessments, however, should allow the local operator to take the necessary measures. COCERAL GTP members are to verify this when they are active in these chains.
Each HACCP study may contain the following chapters (boxes of the flow diagrams §4.1 and §4.2)

- 1. Purchase from farmer and/or trader (1.A and 1.B)**
- 2. Transport/ delivery**
- 3. Receipt of feed/food ingredients**
- 4. Pre storage**
- 5. Handling for placing on the market**
- 6. Storage**
- 7. Sales**
- 8. Preparation for contractual specifications**
- 9. Loading**

3. Those risk assessments may differ amongst traders for example based on the origin of the raw materials and the individual and specific conditions of the operator. The risk assessments have to be seen as guidance and an example.

Moreover, in these tables, no operational prerequisite programme (OPRP) or critical control point (CCP) is listed due to the fact that the decision leading to the establishment of such OPRP or CCP should be consistent with the reality of each location.

4. Coceral GTP justified the risk assessment.
5. COCERAL GTP checked whether EU legislation or trade standards such as those of FEDIOL and FOSFA, NOFOTA or GAFTA set limits for the respective hazard, and if so, listed them.
6. The packing of goods is outside the scope of this methodology for assessing chain risk analyses. Transport of ex-works deliveries is outside the scope of this methodology as well.

COCERAL GTP shall evaluate the feed/food safety assessments every second year.

The risk assessment at the level of the operator is the responsibility of each operator. This document is to be used as an example and guidance.

9.3 GENERAL RISK ASSESSMENT APPLICABLE FOR ANY RAW MATERIAL



ANY RAW MATERIAL				1.A Purchase from farmer and/ or trader			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation Industry standards	Control Measure	Remarks
Foreign bodies like glass, wood, plastics, metals, etc.	P				Reg. 183/2005/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specifications Supplier contract	Advisory approach with farmers Compliance with the good practice guide for field crops
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C				Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Active participation in surveillance schemes Define handling, transport and storage procedures to avoid cross contamination Product specifications Supplier contract	Advisory approach with farmers. See page 23 "Guidance to farmers" Compliance with the good practice guide for field crops Attention for the use of post-harvest pesticides. Special attention for the geographical origin Ensure correct implementation of additional National legislation
Pesticides (unauthorised) residues above the MRL, i.e. residues of unauthorised herbicides, insecticides, fungicides or rodenticides above the MRL	C				Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship	Active participation in surveillance schemes Define handling, transport and storage procedures to avoid cross contamination Product specifications Supplier contract	Advisory approach with farmers. See page 23 "Guidance to farmers" Compliance with the good practice guide for field crops Attention for the use of post-harvest pesticides. Special attention for the geographical origin Some of the banned pesticides may be present in

					EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications		the environment. Ensure correct implementation of additional National legislation
Microbiological contamination above the specified limit Enterobacteriaceae Salmonella Moulds	M				Reg. 852/2004/EC Reg. 2073/2005/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specifications Supplier contract	Advisory approach with farmers (compliance with the good practice guide for field crops, seed variety, drying, transport). See page 23 "Guidance to farmers" Good transport and storage practices at farmers level
Mycotoxins above the specified limit(DON, ZEA,FUM, OTA, AFLA, T2&HT2, Ergot)	C				Dir. 2002/32/EC Rec. 2006/576/EC Reg. 1881/2006/EC T2-HT2: Food Rec. 2013/165/EU Reg. 2015/1940/EU (Ergot food) Dir. 202/32/EC (Ergot Feed) Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Compliance with the good practice guide for field crops Participation in a surveillance monitoring system Product specifications Supplier contract	Advisory approach with farmers (crib drying, ripeness, previous crop, cultivation, irrigation, phytosanitary protection) Good storage practices at farmers level Farmers participation in crop protection network/advisory

Heavy metals above the specified limit	C			Reg. 396/2005/EC Dir. 2002/32/EC Rec. 2006/576/EC Reg. 1881/2006/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specifications Supplier contract	Advisory approach with farmers (compliance with the good practice guide for field crops, seed variety, drying, transport). Special attention for the geographical origin and for some more sensitive species (cf Cadmium in Sun or Durum) Good fertilizing practices Avoid the use of polluted areas
Dioxins, PAH, nitrous oxides above the specified limit	C			Dir. 2002/32/EC Reg. 183/2005/EC Reg 1881/2006/EC Rec. 2014/663/EU Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specifications Supplier contract	Advisory approach with farmers on drying practices See the guidance on drying in the module collection Depending of the geographical location Regular monitoring of the finished products Avoid the use of polluted areas
Phytotoxins or others plant toxins or other regulated components (such as Ambrosia (mainly in Maize, Sun or Soy) or tanins (Sorghum) above the limits	C			Dir. 2002/32/EC Rec. 2015/976/EU (Tropanes Alcaloids) Reg. 1881/2006/EC Reg. 687/2008/EC Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming	Compliance with the good practice guide for field crops Product specification Supplier contract	Advisory approach with farmers (compliance with the good practice guide for field crops, seed variety, drying, transport). Special attention for the geographical origin. Use of certified seeds or graded farm seeds Good cleaning of products

					material and feed/food ingredient specifications		
Radionucleides above the specified limits Such as Caesium 134 & 137	C				Reg. 733/2008/EC Euratom 2016/52/EC Reg 2016/6/EU (Japan) Copa Cogeca Guide Good Agricultural Practices EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Monitoring and testing's at loading Product specification Supplier contract	Advisory approach with farmers (compliance with the good practice guide for field crops, seed variety, drying, transport). Special attention for products originated from countries at risks (i.e Ukraine, Japan, Russia)
Contamination with mineral oil	C	Low	High	3	EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Use of food grade oil by the farmers when spraying equipment for storage of the equipment Inspection of the equipment, trucks, conveyors, silo's Use of food grade lubricants based on a risk assessment	Advisory approach with farmers

ANY RAW MATERIAL				2. Transport/ delivery			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Foreign bodies like glass, wood, plastics, metals, etc.	P	Low	High	3	Reg. 183/2005/EC EFISC-GTP Code § 4.3.12 Transport	- Use of closed transport - Visual and physical check - Product specifications - Supplier contract	
Contamination from previous loads or bad transport practices	C/P/B	Low	Medium	2	- Reg. 183/2005/EC - Reg. 852/2004/EC Consolidated - EFISC-GTP Code § 4.3.12 -Transport EFISC-GTP Code §4.3.5 - Measures for the prevention of contamination	- Use of closed transport - Control of the three previous loads - Visual and physical inspection - Control of the cleaning program applied - Food dedicated transport means - Receptacles in vehicles and/or containers are not to be used for transporting anything other than foodstuffs where this may result in contamination - Control of the transport means and loading compartments - Transport requirements defined and communicated - Product specification - Supplier contract - Evaluation of the effectiveness of cleaning regime/procedure (if conveyances and/or containers have been used for transporting anything other than foodstuff or for transporting different foodstuff)	Issuance of LCI and adequate cleaning procedures to be applied. Consultation of the IDTF database Evaluation of cleaning procedures is risk based and regarding food allergens (listed in Reg. EU 1169/2011) must consider visual absence of any visible debris

Microbiological contamination Enterobacteriaceae Salmonella Moulds	B	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Use of closed transport Contracts containing feed/food Transport requirements defined and communicated Product specification Supplier contract	
Chemical contamination from improper maintenance	C	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination EFISC-GTP Code §4.2.5 maintenance	Visual control of the hold and the transport means Maintenance procedures in place and implemented Supplier contract containing feed/food adequate transport requirements Supplier contract	
Fumigation residues above the limit	C	Low	Medium	2	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Fumigation procedures Applied control of time, ventilation and temperature Product specification Supplier contract	Specialised and trained staff in fumigation procedures See page 23 " <i>pesticides management</i> "
Contamination with mineral oil	C	Low	High	3	EFISC-GTP Code EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Inspection of the equipment, trucks, conveyors Use of food grade lubricants LCI for trains, barges and vessels	Advisory approach with farmers/ transporter



ANY RAW MATERIAL				3. Receipt of feed/food ingredients			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Foreign bodies like glass, wood, plastics, metals, etc.	P	Low	High	3	183/2005/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials	Visual and physical inspection of the incoming material Product specification Supplier contract	General processing steps shall be purifying (magnets, screens, sieving, fluid beds)
Phytotoxins above the specified limit Datura Stramonium	C	Low	High	3	Dir. 2002/32/EC Rec. 2015/976/EU (Tropanes Alcaloids) Reg. 1881/2006/EC Reg. 687/2008/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Visual and physical inspection of the incoming material A monitoring procedure should be in place Good storage practices Product specification Supplier contract	Special attention for the geographical origin. Ensure correct implementation of additional National legislation Latter general processing steps shall be purifying
Microbiological contamination Enterobacteriaceae Salmonella Moulds	C	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Incoming material control. A monitoring procedure should be in place Product specification Supplier contract	Assess and define the necessary control measures to stabilise the product Attention to the different National requirements
Mycotoxins above the specified limit Aflatoxin B1 & Sum, DON, ZEA, FUM, OTA, T2&HT2, Ergot	C	Medium	High	4	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006/EC Rec. 2013/165/EU Reg. 2015/1940 Dir. 202/32 EFISC-GTP Code §4.3.3 Handling of the incoming materials	Incoming material control Good Hygiene practices Storage environment control Active participation in surveillance schemes A monitoring procedure should be in place Product specification Supplier contract	Special attention for the botanical origin and geographical origin. For Maize: see the Mycotoxin/ Aflatoxin B1 Code of good practice

					§4.4.3 Inspection, sampling and analysis		
Dioxins, PAH, nitrous oxides above the specified limits	C	Low	High	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg. 1881/2006 & Rec. 2014/663/EU EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Incoming material control and monitoring procedure should be in place Product specification Supplier contract	Depending of the geographical location
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Ingredient specifications Incoming material control A monitoring plan should be in place Product specification Supplier contract	Attention for the use of post-harvest pesticides. Special attention for the geographical origin. Be aware of different legal requirements in third countries
Residues from storage pesticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Incoming material control Documentation of treatments Avoiding cross contamination A monitoring plan should be in place Product specification Supplier contract	Special attention for the geographical origin. Be aware of different legal requirements in third countries
Pesticides residues (unauthorised) above the MRL	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Incoming material control A monitoring plan should be in place Product specification Supplier contract	Attention for the use of post-harvest pesticides. Some of the banned pesticides may be present in the environment. Special attention for the geographical origin. Be aware of different legal requirements in third countries

Heavy metals above the specified limit Arsenic Cadmium Mercury Lead	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Rec.2006/576/EC Reg 1881/2006/EC EFISC-GTP Code §4.3.3 Handling of the incoming materials §4.4.3 Inspection, sampling and analysis	Incoming material control A monitoring program should be in place Product specification Supplier contract	Special attention for the geographical origin
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ANY RAW MATERIAL				4. Pre storage			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Microbiological contamination Enterobacteriaceae Salmonella Moulds	C	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code § 4.3.11 Storage	Good Hygiene practices Training of staff in detecting mould and bunt Control storage duration and humidity level ingredient and environment Apply FIFO Product specification Contract with the service provider	See page 24 "Guidance on pre-storage"
Mycotoxins above the specified limit (DON, ZEA, FUM, OTA, AFLA, T2&HT2, Ergot)	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg. 1881/2006 Rec. 2013/165/EU Reg. 2015/1940 Dir. 202/32 EFISC-GTP Code § 4.3.11 Storage	Good Hygiene practices Storage environment control A monitoring procedure should be in place Product specification Contract with the service provider	Special attention for the botanical origin and geographical origin. For Maize: see the Mycotoxin/ Aflatoxin B1 Code of good practice
Infested with living and/or dead insects	B	Low	Medium	1	Reg. 183/2005/EC Be aware of the different requirements in the national legislation EFISC-GTP Code § 4.3.11 Storage	Good Hygiene Practices Training of staff on visual and physical inspection Defined and controlled pre-storage conditions Regular cleaning of the pits and silo's Treatment fumigants in case of contamination Product specification Contract with the service provider	
Residues from storage pesticides	C	Medium	Medium	3	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP Code § 4.3.11 Storage	Product specifications Documentation of fumigation treatments Segregation of ingredients Defined sampling and monitoring	Train staff on approved treatment products and methods and their consequences

						plan. Product specification Contract with the service provider	
Cross contamination of product	C	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code § 4.3.11 Storage EFISC-GTP Code §4.3.4 Measures for the prevention of cross contamination	Organisational and physical separation Documentation of fumigation and post-harvest treatments Working procedures for the handling of chemicals Contract with the service provider	See EFIS.GTP on segregation
Flying-in birds	B	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code § 4.3.11 Storage EFISC-GTP Code § 4.2.3.2 Requirements for loading, storage, production areas	The PRP program should address closed buildings, windows and doors. The PRP program should include a pest control program Maintenance procedures in place Contract with the service provider	Training of staff
Lack of hygiene	B	Low	High	3	Reg. 183/2005/EC EFISC-GTP Code §4.2.2.3 Personal hygiene	Staff hygiene training shall be provided and the appropriate sanitation, clothing, work instructions and material regarding cleaning foreseen. Contract with the service provider	Hygiene prerequisite program.
Cross contamination by residues of pesticides above the limit or not authorised for a specific botanical origin	C	Low	Medium	2	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code § 4.3.4 Measures for the prevention of cross contamination	Defined working procedures to avoid cross contamination should be in place The PRP programme should be designed to avoid cross contamination Contract with the service provider	
Lubricants from equipment	C	Low	High	3	Reg. 183/2005/EC EFISC-GTP Code § 4.3.5 Measures for the prevention of contamination, § 4.2.5 Maintenance	Use of food grade lubricants where applicable. Control and registration of the quantities used. Good maintenance programme. Contract with the service provider	Purchasing specifications.

Cleaning and disinfection agents	C	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code §4.2.6 Cleaning, disinfection and cleaning	The PRP programme should address the cleaning and sanitation. The cleaning agents and disinfection agents used should be authorised and suitable for use in the feed/food industry. Contract with the service provider Availability of cleaning instructions	Purchasing specifications.
Pest, rodents	B	Medium	Medium	3	Reg. 183/2005/EC EFISC-GTP Code §4.2.7 Pest control	Building proofing, cleaning programs and pest control system as part of the prerequisite program Contract with the service provider	



ANY RAW MATERIAL				5. Handling for placing on the market			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Foreign bodies like glass, wood, plastics, metals, etc.	P	Low	High	3	183/2005/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients	Ingredient specifications Processing steps shall be purifying (magnets, screens, sieving, other) Contract with the service provider	
Phytotoxins above the specified limits	C	Low	High	3	Dir. 2002/32/EC Rec. 2015/976/EU (Tropanes Alkaloids) Reg. 1881/2006/EC Reg. 687/2008/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	Ingredient specifications Training of staff Screening, cleaning and sorting of the ingredients in order to achieve legal compliance by batch Sampling and analysis Contract with the service provider	Special attention for the geographical origin.
Microbiological contamination Enterobacteriaceae Salmonella Moulds	C	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	Ingredient specifications Reducing the humidity in the ingredients in order to control the growth conditions Sampling and analysis Contract with the service provider	Management of the dryers
Mycotoxins above the specified limit (DON, ZEA,FUM, OTA, AFLA, T2&HT2, Ergot)	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006 Rec. 2013/165/EU Reg. 2015/1940 Dir. 202/32	Ingredient specifications Screening, cleaning and sorting of the ingredients in order to achieve legal compliance by batch Sampling and analysis Contract with the service provider	Special attention for the botanical origin and geographical origin.

					EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis For Maize see the Aflatoxin B1 protocol for the risk levels by country and monitoring and sampling requirements		
Infestation with dead and/or living insects	B	Low	Low	1	Reg 183/2005/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients	Ingredient specification Cleaning of the ingredients Treatment with fumigants in case of contamination Sampling and analysis Contract with the service provider	
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	Ingredient specifications Screening, cleaning and sorting of the ingredients in order to achieve legal compliance by batch Sampling and analysis Contract with the service provider	Special attention for the geographical origin.
Residues from storage fumigants above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	Ingredient specifications Documentation of treatments Screening, cleaning and sorting of the ingredients in order to achieve legal compliance by batch Defined working procedures to avoid cross contamination Sampling and analysis Contract with the service provider	Train staff on approved treatment products and methods and their consequences
Pesticides residues (unauthorised) above the MRL	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC	Ingredient specifications Screening, cleaning and sorting of the ingredients in order to achieve legal	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may

					EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	compliance by batch Sampling and analysis Contract with the service provider	be present in the environment. Special attention for the geographical origin.
Heavy metals above the specified limits	C	Low	High	3	Dir. 2002/32/EC Reg. 1881/2006 EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients	Ingredient specification. Screening, cleaning and sorting of the ingredients in order to achieve legal compliance by batch Sampling and analysis Contract with the service provider	Special attention for the geographical origin.
Cross contamination	C/P	Low	Medium	2	EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.3.4 Measures for the prevention of cross contamination	Organisational and physical separation Defined working methods and procedures Contract with the service provider	See EFIS.GTP §4.3.4 and § 4.3.10 on cross contamination and segregation
PAH, nitrous oxides, dioxins above the legal limit	C	Medium	Medium	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.4.3 Inspection, sampling and analysis	Good burner maintenance practices. Trained staff for the use of the drying equipment Avoid formation of soot. An in depth HACCP study should be in place in combination with good maintenance practices. Regular monitoring of the finished products. Contract with the service provider	A monitoring program should be in place. See the guidance on drying in the module collection Special attention for the geographical origin.
Adulteration	C/P/B	Low	Medium	2	EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients EFISC-GTP Code § 4.6 Feed/food vulnerability assessment	Product specifications Contract with the service provider	Defined monitoring program, feed/food fraud vulnerability assessment. See the EFISC-GTP Code § 4.6 Special attention for the geographical origin.

ANY RAW MATERIAL				6. Storage			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Foreign material	P	Low	High	3	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment §4.3.5 Measures for the prevention of contamination	General processing steps shall be purifying (magnets, screens, sieving, other) PRP programme Procedure to control the contamination with foreign material	
Microbiological contamination Enterobacteriaceae Salmonella Moulds	C	Low	High	3	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment	Ingredient specifications Controlled storage conditions Temperature and humidity control and registration Sufficient ventilation Sampling and analysis Regular monitoring	A risk assessment should define the storage parameters by feed/food ingredient Train staff on Good Hygiene Practices
Mycotoxins above the specified limit (DON, ZEA,FUM, OTA, AFLA, T2&HT2, Ergot)	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg. 1881/2006 EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment	Ingredient specifications Controlled storage conditions Temperature and humidity control and registration Sufficient ventilation Sampling and analysis Regular monitoring	For Maize see the Aflatoxin B1 protocol for the risk levels by country and monitoring and sampling requirements
Infestation by living or dead insects	B	Low	Medium	2	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment	Ingredient specifications Visual inspection of the storage facilities Temperature and humidity control and registration Sufficient ventilation Treatment with pesticides in case	Free of living insects Living insects might cause the growth of mycotoxins Train staff on Good Hygiene Practices

						of contamination	
Residues from storage fumigants above the MRL	C	Low	High	3	Reg. 396/2005/EC EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment	Ingredient specifications Fumigation procedures Documentation of treatments Segregation of ingredients to avoid cross contamination Defined sampling and monitoring plan	Train staff on approved treatment products and methods and their consequences
Contamination due to lack of segregation certified – non- certified- food-feed-technical (contamination from previous cargoes, shared equipment, insufficient storage capacity)	C	Medium	Medium	3	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment §4.3.10 The handling of non-certified feed/food and non- feed/food ingredients in collection, trade storage and transport §4.4.4 Control of non- conforming product	Organisational and physical separation Defined working methods	Training of staff
Pest, insects and rodents	B	Medium	Medium	3	Reg. 183/2005 EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment	Building proofing, cleaning programs and pest control system as part of the prerequisite program. Covered storage and loading areas	Train staff on pest awareness
Lubricants / hydraulic oil from equipment and transport means	C	Low	High	3	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transhipment §4.2.5 Maintenance	Purchasing specifications Use of food grade lubricants where applicable. Control and registration of the quantities used. Defined maintenance programme.	

Cleaning and disinfection agents	C	Low	Medium	2	EFISC-GTP Code § 4.3.11 Storage §4.3.11.1 Storage and transshipment §4.2.6 Cleaning, disinfection and sanitation	Purchasing specifications The PRP programme should address the cleaning and sanitation. The cleaning agents and disinfection agents used should be authorised and suitable for use in the food industry. Define cleaning and disinfection procedures	
Contamination after maintenance	P/C	Low	High	3	§4.2.5 Maintenance	Defined working procedures	Training of staff. Define Good Hygiene Practices See EFISC-GTP Code § 4.2.5 maintenance
Contaminants coming from fumigation	C	Low	Medium	2	§4.3.5 Measures for the prevention of contamination	Working procedures Use of approved products Control of time and temperature	See page 29: Guidance for the storekeeper on the use of pesticides

ANY RAW MATERIAL				7. Sales			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Specification finished product in line with legal requirements	C	Low	Medium	2	EFISC-GTP Code §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents §4.3.10 The handling of non-certified feed/food and non-feed/food ingredients in collection, trade , storage and transport § 6.4 Incoming material and feed/food ingredient specifications	Ingredient specification. Contracts with customer containing feed/ food adequate requirements.	Customer relationship- see EFISC-GTP Code
Specification finished product in line with the contractual requirements	C	Low	Medium	2	EFISC-GTP Code §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents § 6.4 Incoming material and feed/food ingredient specifications	Ingredient specification Contracts with customer containing all contractual requirements.	Customer requirements Sales requirements Purpose of the feed/food ingredient Customer relationship- see EFISC-GTP Code
Wrong labelling		Medium	Medium	3	Reg. 767/2009/EC Directive 2000/13/EC §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents § 6.4 Incoming	Ingredient specification Labelling requirements	



					material and feed/food ingredient specifications		
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ANY RAW MATERIAL				8. Preparation for contractual specifications			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Specification finished product in line with legal requirements	C	Low	Medium	2	Reg. 767/2009/EC EFISC-GTP Code §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents § 6.4 Incoming material and feed/food ingredient specifications	Ingredient specification. Mixing, blending of feed/food ingredients	Training of staff
Contamination due to lack of segregation certified – non- certified- food-feed-technical (contamination from previous cargoes, shared equipment, insufficient storage capacity)	C	Low	Medium	2	§4.3.10 The handling of non-certified feed/food and non-feed/food ingredients in collection, trade , storage and transport	Ingredient specification Organisational and physical separation Defined working methods Defined monitoringplan	See EFIS.GTP on segregation Training of staff
Labelling requirements		Medium	Medium	3	Reg. 767/2009/EC EFISC-GTP Code §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents	Ingredient specification Labelling requirements	Training of staff
Adulteration	C/P/B	Low	Medium	2	EFISC-GTP Code §4.6Feed/Food Fraud vulnerability assessment	Product specifications Defined monitoring program Implementation feed/food fraud vulnerability assessment	

Packaging contamination	C/P	Low	Low	1	4.3.5 Measure for the prevention of contamination	Product specification of packaging material Working procedures	
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RAW MATERIAL				9. Loading of the finished product and transport			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation, Industry standard	Control Measure	Remarks
Foreign bodies like glass, wood, metals, etc.	P	Low	High	3	Reg. 183/2005/EC EFISC-GTP §4.3.12 Transport EFISC-GTP Code § 4.3.8 Production and handling of feed/food ingredients §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents	Ingredient specifications Processing steps shall be purifying (magnets, sieving, other) Working procedures Contract with the service provider Defined monitoring plan	Train staff on Good Hygiene Practices Training of staff on the use of the IDTF database ; cleaning protocols
Microbiological contamination Enterobacteriaceae Salmonella Moulds	C	Low	High	3	Reg. 183/2005/EC EFISC-GTP §4.3.12 Transport §4.3.11.1 Storage and transshipment §4.3.9 Delivery of feed/food ingredients- labelling and accompanying documents	Closed loading facilities Defined PRP program Defined loading procedures Cleaning procedures Sampling and analysis Defined monitoring plan	Train staff on Good Hygiene Practices Training of staff on the use of the IDTF database ; cleaning protocols
Cross contamination	C/P	Medium	Medium	3	Reg. 183/2005/EC EFISC-GTP §4.3.12 Transport §4.3.10 The handling of non-certified feed/food and non-	Organisational and physical separation Defined working methods	Issuance of LCI and adequate cleaning procedures to be applied Training of staff on the use of the IDTF database ; cleaning protocols

					feed/food ingredients		
Cross contamination with backhaul products	C/P	Medium	Medium	3	Reg. 183/2005/EC EFISC-GTP §4.3.12 Transport	Defined transport requirements Haulier contract specifications	Training of staff on the use of the IDTF database ; cleaning protocols
Contamination by non- conforming products through previous loads	C/P	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP §4.3.12 Transport	Defined transport requirements Control of the previous loads Defined loading procedure	Training of staff on the use of the IDTF database
Contamination with cleaning products	C	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination §4.2.6 Cleaning , disinfection and sanitation	Control of the cleaning regime of the previous loads Defined loading procedure Product specifications	Training of staff on the use of the IDTF database ; cleaning protocols
Contamination with contaminated water due to cleaning	C	Low	Medium	2	Reg. 183/2005/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination § 4.2.9 Water, steam and air supply §Cleaning , disinfection and sanitation	Product specification Control of the water quality. Use of suitable water Working procedures Defined monitoring	Training of staff on the use of the IDTF database ; cleaning protocols
Contamination with anti-dust agents/ mineral oil	C	Low	High	3	Reg. 183/2005/EC §4.3.5 Measures for the prevention of contamination	Use of food grade oil	
Contamination from packaging material	C	Low	Low	1	Reg. 183/2005/EC EFISC-GTP Code 4.3.12.2 Transport operation packed feed/food ingredients	Control of packaging material Product specification	



					§4.3.5 Measures for the prevention of contamination		
Lubricants from equipment and vehicles	C	Low	High	3	Reg. 183/2005/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination §4.2.5 Maintenance	Product specifications. Maintenance programme Use of food grade lubricants where applicable. Control and registration of the quantities used	

9.4 GENERAL RISK ASSESSMENT APPLICABLE FOR CEREALS AND PRODUCTS DERIVED THEREOF

See the Starch Europe risk assessment for the co products

CEREALS AND PRODUCTS DERIVED THEREOF				1. Trading of cereals			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation Industry standard	Control Measure	Remarks
Foreign bodies like glass, wood, metals, plastics etc.	P	Medium	High	4	Reg. 183/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification. Supplier contract Prevent the introduction of foreign objects into the feed/food ingredients. General processing steps shall be purifying (magnets, screens). GHP in place Defined PRP program	
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Advisory approach with farmers Control end use of pesticides. Special attention for the use of post-harvest pesticides. Cross contamination risks during handling Special attention for the geographical origin.
Pesticides residues (unauthorised) above the MRL Storage pesticides at farmer level above MRL	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1	Product specification Supplier contract Active participation in surveillance schemes for pesticides monitoring. A pesticides monitoring program	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may be present in the environment.

					Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	should be in place. Define handling, transport and storage procedures to avoid cross contamination	
Mycotoxins above the specified limit Aflatoxin B1 & Sum, DON, ZEA,FUM, OTA, T2&HT2, Ergot	C	Medium	High	4	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006 T2-HT2: Rec. 2013/165/EU Ergot : Reg 2015/1940 and Dir 202/32 See the EFISC-GTP aflatoxin protocol for Aflatoxin in corn EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for contaminant monitoring. A contaminant monitoring program should be in place.	Supplier's specification. Traceability from supplier's silo's. Maximum Aw Storage duration, ventilation and temperature
Toxic substances from the environment above limits	C	Low	High	3	Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract A contaminant monitoring program should be in place.	Special attention to the region of origin
Dioxins, PAH, nitrous oxides	C	Low	High	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing	Product specification Supplier contract Guidance to the farmer on GAP Defined contaminant monitoring of the products.	Advisory approach to farmers on drying practices See the guidance on drying in the module collection Depending of the geographical location

					§4.4.3 Inspection, sampling and analysis Code Code § 6.4 Incoming material and feed/food ingredient specifications Code of good practice dioxin monitoring		
Microbiological contamination Clostridia Enterobacteriaceae Salmonella Moulds and yeast	M	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.4.3 Inspection, sampling and analysis Code	Product specification Supplier contract Closed storage and transport Good Hygiene Practices	Good agricultural practices and good hygiene practices.
Contamination with hydrocarbons	C	Low	High	3	EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.2.5 Maintenance	Inspection of the equipment, trucks, conveyors, silo's Use of food grade lubricants based on a risk assessment	Maintenance of equipment
Contamination with fungicides	C	Medium	Medium	3	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Defined monitoring plan Defined working procedures and documentation	See guidance for the storekeeper on the use of pesticides, page 29 Trained staff and/or service provider Check National legislation requirements

9.5 GENERAL RISK ASSESSMENT APPLICABLE FOR OILSEEDS AND PRODUCTS DERIVED THEREOF

See the FEDIOL risk assessment for the oilseeds, protein meal and other co- products
See the EBB risk assessment for the co- product glycerine

OILSEEDS AND PRODUCTS DERIVED THEREOF				Trading of oilseeds			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation	Control Measure	Remarks
Foreign bodies like glass, wood, metals, etc.	P	Medium	High	4	Reg. 183/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification. Supplier contract Prevent the introduction of foreign objects into the feed/food ingredients. General processing steps shall be purifying (magnets, screens). GHP in place Defined PRP program	
Botanical impurities	C	Low	High	3	Dir. 2002/32/EC Rec. 2015/976/EU (Tropanes Alcaloids) Reg. 1881/2006/EC Reg. 687/2008/EC	Product specification. Supplier contract General processing steps shall be purifying (fluid bed, sieving).	Good agricultural practices Weed control Pre harvest monitoring
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Advisory approach with farmers Control end use of pesticides. Special attention for the use of post-harvest pesticides. Cross contamination risks during handling Special attention for the geographical origin.

Pesticides residues (unauthorised)	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides monitoring. A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may be present in the environment.
Microbiological contamination Enterobacteriaceae Salmonella Moulds	M	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.4.3 Inspection, sampling and analysis Code	Product specification Supplier contract Closed storage and transport Good Hygiene Practices	
Mycotoxins above the specified limit (DON, ZEA,FUM, OTA, AFLA, T2&HT2, Ergot)	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006 T2-HT2: Rec. 2013/165/EU Ergot : Reg 2015/1940 and Dir 202/32 EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for contaminant monitoring. A contaminant monitoring program should be in place.	Supplier's specification. Traceability from supplier's silo's. Maximum Aw Storage duration, ventilation and temperature

Toxic substances from the environment above limits	C	Low	High	3	Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract A contaminant monitoring program should be in place.	Special attention to the region of origin
Dioxins and dioxin like PCB's Polychlorinated biphenyls (PCB's) Polycyclic Aromatic Hydrocarbons (PAH)	C	Low	High	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code Code § 6.4 Incoming material and feed/food ingredient specifications FEDIOL Code of good practice dioxin monitoring	Product specification Supplier contract Guidance to the farmer on GAP Defined contaminant monitoring of the products.	Advisory approach to farmers on drying practices See the guidance on drying in the module collection Depending of the geographical location Attention for the concentration factors in co-products. See the FEDIOL sector document
Heavy metals from the environment above limits	C	Low	High	3	Reg 1881/2006/EC	Product specification Supplier contract A monitoring program should be in place.	Attention for the region of origin
Contamination with hydrocarbons	C	Low	High	3	EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.2.5 Maintenance	Inspection of the equipment, trucks, conveyors, silo's Use of food grade lubricants based on a risk assessment	Maintenance of equipment

Fumigants	C	Low	High	3	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP 4.3.4 Measure for the prevention of cross contamination EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Defined monitoring plan Defined working procedures and documentation	See guidance for the storekeeper on the use of pesticides, page 29 Trained staff and/or service provider Check National legislation requirements Attention for the cross contamination with fumigants previously stored product (cereals)
Erucic acid	C	Low	High		Reg. 1881/2006/EC EU catalogue of plant varieties footnote 38	Good Agricultural practices	Special attention for the region of origin (UK) and botanical origin (rapeseed)

9.6 GENERAL RISK ASSESSMENT APPLICABLE FOR LEGUME SEED AND PRODUCTS DERIVED THEREOF

LEGUME SEEDS AND PRODUCTS DERIVED THEREOF				Trading of legume seeds			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation	Control Measure	Remarks
Foreign bodies like glass, wood, metals, plastic etc.	P	Medium	High	4	Reg. 183/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification. Supplier contract Prevent the introduction of foreign objects into the feed/food ingredients. General processing steps shall be purifying (magnets, screens). GHP in place Defined PRP program	
Botanical impurities	C	Low	High	3	Reg. 183/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Good agricultural practices Weed control General processing steps shall be purifying (fluid bed, sieving).	
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Advisory approach with farmers Control end use of pesticides. Special attention for the use of post-harvest pesticides. Cross contamination risks during handling Special attention for the geographical origin.

Pesticides residues (unauthorised)	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides monitoring. A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may be present in the environment.
Mycotoxins above the specified limit Aflatoxin B1 & Sum, DON, ZEA,FUM, OTA, T2&HT2, Ergot	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006 T2-HT2: Rec. 2013/165/EU Ergot : Reg 2015/1940 and Dir 202/32 EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for contaminant monitoring. A contaminant monitoring program should be in place.	Supplier's specification. Traceability from supplier's silo's. Maximum Aw Storage duration, ventilation and temperature
Microbiological contamination Enterobacteriaceae Salmonella Moulds	M	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.4.3 Inspection, sampling and analysis Code	Product specification Supplier contract Closed storage and transport Good Hygiene Practices	

Dioxins and dioxin like PCB's, PCB's, PAH's	C	Low	High	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Guidance to the farmer on GAP Defined contaminant Monitoring of the products.	Advisory approach to farmers on drying practices See the guidance on drying in the module collection Depending of the geographical location
Heavy metals from the environment above limits	C	Low	High	3	Reg 1881/2006/EC	Product specification Supplier contract A monitoring program should be in place.	Attention for the region of origin
Hydrocarbons from lubricants	C	Low	High	3	EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.2.5 Maintenance	Inspection of the equipment, trucks, conveyors, silo's Use of food grade lubricants based on a risk assessment	Maintenance of equipment
Fumigants	C	Medium	High	4	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP 4.3.4 Measure for the prevention of cross contamination EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Defined monitoring plan Defined working procedures and documentation	See guidance for the storekeeper on the use of pesticides, page 29 Trained staff and/or service provider Check National legislation requirements Attention for the cross contamination with fumigants previously stored product (cereals)

9.7 GENERAL RISK ASSESSMENT APPLICABLE FOR TUBERS ROOTS AND PRODUCTS DERIVED THEREOF

TUBERS/ ROOTS AND PRODUCTS DERIVED THEREOF				Trading of root/ tuber crops with high starch inulin content			
Hazard	Cat.	Chance	Severity	Risk Class.	Legislation	Control Measure	Remarks
Foreign bodies like glass, wood, metals, plastic etc.	P	Medium	High	4	Reg. 183/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification. Supplier contract Prevent the introduction of foreign objects into the feed/food ingredients. General processing steps shall be purifying (magnets, screens). GHP in place Defined PRP program	
Pesticide residues (authorised) above the MRL, i.e. residues of herbicides, insecticides, fungicides or rodenticides above the MRL	C	Medium	Medium	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for pesticides A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	Advisory approach with farmers Control end use of pesticides. Special attention for the use of post-harvest pesticides. Cross contamination risks during handling Special attention for the geographical origin.
Pesticides residues (unauthorised)	C	Low	High	3	Reg. 396/2005/EC Dir.2002/32/EC Dir. 86/362/EC EFISC-GTP Code §4.5.1 Supplier relationship	Product specification Supplier contract Active participation in surveillance schemes for pesticides monitoring.	Directive 2002/32/EC sets limits for a number of pesticides residues in feeding stuff. Some of the banned pesticides may be

					EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	A pesticides monitoring program should be in place. Define handling, transport and storage procedures to avoid cross contamination	present in the environment.
Nitrates & Nitrites	C	Medium	High	4	Dir 2002/32/EC	Product specification	Risk by geographical origin Use of fertilizers
Salts Fluorine/ Fluoride	C	Low	High	3	?	Product specification	Risk by geographical area
Microbiological contamination Clostridia Enterobacteriaceae Salmonella Moulds and yeast	M	Low	High	3	Reg. 852/2004/EC Reg. 2073/2005/EC EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.4.3 Inspection, sampling and analysis Code	Product specification Supplier contract Closed storage and transport Good Hygiene Practices	Good agricultural practices and good hygiene practices.
Mycotoxins above the specified limit Aflatoxin B1 & Sum, DON, ZEA,FUM, OTA, T2&HT2, Ergot	C	Low	High	3	Dir. 2002/32/EC Rec. 2006/576/EC Reg 1881/2006 T2-HT2: Rec. 2013/165/EU Ergot : Reg 2015/1940 and Dir 202/32 EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code § 6.4 Incoming material and feed/food ingredient specifications	Product specification Supplier contract Active participation in surveillance schemes for contaminant monitoring. A contaminant monitoring program should be in place.	Supplier's specification. Traceability from supplier's silos. Maximum Aw Storage duration, ventilation and temperature

Heavy metals Arsenic Cadmium Mercury Lead	C	Low	High	3	Reg 1881/2006/EC	Product specification Supplier contract A monitoring program should be in place.	Attention for the region of origin
Dioxins and dioxin-like PCB's	C	Low	High	3	Dir. 2002/32/EC Reg. 183/2005/EC Reg. 1881/2006 Rec. 2014/663/EU EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing §4.4.3 Inspection, sampling and analysis Code Code § 6.4 Incoming material and feed/food ingredient specifications Code of good practice dioxin monitoring	Product specification Supplier contract Guidance to the farmer on GAP Defined contaminant monitoring of the products.	Advisory approach to farmers on drying practices See the guidance on drying in the module collection Depending of the geographical location
Hydrocarbons	C	Low	High	3	EFISC-GTP Code §4.5.1 Supplier relationship EFISC-GTP Code §4.3.1.1 Requirements for purchasing Code § 6.4 Incoming material and feed/food ingredient specifications §4.2.5 Maintenance	Inspection of the equipment, trucks, conveyors, silo's Use of food grade lubricants based on a risk assessment	Maintenance of equipment
Fumigants	C	Medium	High	4	Reg. 396/2005/EC Dir. 2002/32/EC Dir. 86/362/EC EFISC-GTP 4.3.4 Measure for the prevention of cross contamination EFISC-GTP Code §4.3.5 Measures for the prevention of contamination	Defined monitoring plan Defined working procedures and documentation	See guidance for the storekeeper on the use of pesticides, page 29 Trained staff and/or service provider Check National legislation requirements Attention for the cross contamination with fumigants previously stored product (cereals)

Germination inhibitors	C	Medium	Medium			A monitoring program should be in place. Product specification Supplier contract	Especially for potatoes
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9.8 GENERAL RISK ASSESSMENT APPLICABLE FOR OTHER CROPS AND PRODUCTS DERIVED THEREOF

Please see the generic assessment

9.9 GENERAL RISK ASSESSMENT APPLICABLE TO ROAD TRANSPORT AS A SERVICE

TRANSPORT				1. Order acceptance			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation	Control Measure	Remarks
Selection/use of own unsuitable means of transportation	C, M, P	Low	High	2		Selection suitable means of transportation, certified subcontractor, if necessary	Threat to food/feed safety due to previous cargo, hygiene, material, age, condition of the vehicle, cleaning no longer possible, leaking
Uncertified subcontractor	C, M, P	Low	High	2		Exclusive commission /use of certified transport companies. If this is not possible, indications provided in paragraph 4.3.11.3 and 4.3.11.4 – c of the EFISC-GTP standard, shall apply.	Insufficient knowledge of quality assurance/cleaning
Insufficient product information	C, M, P	Low	High	2		Seek sufficient information about the product (cleaning measures, product category, hazardous goods, forbidden previous cargo, product characteristics that require special transport conditions, customer requirements)	No adequate feasibility check possible/no evident decision-making basis: product not known precisely/only under trade name, selection of the wrong means of transportation, wrong cleaning measures, high-risk material
Insufficient forwarding of information (about the product, transportation,...)	C, M, P	Low	Medium	1		Precise, complete instruction for haulage contractor in terms of product and loading point/unloading point	Wrong cleaning measures: wrong or no specification of cleaning category, possibly forbidden product, previous cargo named falsely/imprecisely/only by trade name

TRANSPORT				2. Loading			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation Industr	Control Measure	Remarks
Cleaning not according to previous cargo	C, M, P	Low	High	2	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport EFISC-GTP Sector reference document §8 Transport Module	Cleaning before loading according to ICRT-requirement, www.icrt-idtf.com (feed) or based on risk assessment (this also applies to combination vehicles ¹)	Possible hazard to feed safety due to previous cargo (contamination): previous cargo with C-/D-cleaning but only dry cleaning performed or not risk based

¹ Vehicles normally used to transport feed and farm manure

Non-executed load compartment check	C, M, P	Low	High	2	<p>Reg. 183/2005/EC</p> <p>Reg. 852/2004/EC §4,5,6</p> <p>EFISC-GTP Code §4.3.11 Transport</p> <p>EFISC-GTP Sector reference document §8 Transport Module</p>	<p>Perform load compartment check before loading, secondary-cleaning and follow-up check, if necessary</p> <p>In case of feed materials transported in vehicles with multiple load compartments, indications provided in paragraph 8.2.4 of this document apply.</p> <p>For combination vehicles perform sight check for mechanical damage (leakage); annual inspection to prove that load compartments are fully separated and non-corrosion damage is present. Hose used for loading of manure made of high resistant PE or PET, replacement of flexible loading space unit at least every 5 years; separated loading space for not in use hose; clean loading area before hose filling; visual check of the hose system during loading / unloading; training of the drivers; Drivers of combination vehicles must have protective clothing on board, stored separately and worn solely when handling farm manure.</p>	<p>Possible hazard to food/feed safety due to residues of previous cargo or due to poor condition of load compartment: load compartment not clean, dry, hygienically impeccable, free from odour, bugs/insects, excrements, rodents; load compartment not lockable (ex. lorry: damaged tarpaulin)</p> <p>In case of feed materials transported in vehicles with multiple load compartments, measures must be taken to avoid mixing or contamination. Nonconformities must be documented, and corrective actions defined.</p> <p>Possible contamination of feed with manure in combination vehicles: no complete structural separation of load compartments, dividing walls not corrosion resistant, connections and discharges not enclosed in a tightly closing armature box, outflow not sealable, no automatic overflow protection.</p>
Insufficient loading conditions	M, P	Low	Medium	1		Inform head office	Possible hazard to food/feed safety due to insufficient loading conditions: rain/non-weather-protected loading area, severe constructional-technical deficiencies, unwanted dusts, hygienic condition and surrounding of loading device

Goods/product wrong, hygienically not impeccable	C, M, P	Low	Medium	1	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport EFISC-GTP Sector reference document §8 Transport Module	Examination of goods, terminate loading process, inform head office	Possible hazard to food/feed safety due to foreign bodies, mixing of goods, goods evidently not acceptable (mold, spoilage, odor, bugs), wrong goods loaded
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TRANSPORT				3. Transport			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation	Control Measure	Remarks
Product protected insufficiently	C, M, P	Low	Low	1	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport EFISC-GTP Sector reference document §8 Transport Module	Lorry: shut tarpaulin/dome cover immediately after loading; periodic maintenance and upkeep/repair	Possible hazard to food/feed safety due to permeating water, contamination due to unfavorable environmental and atmospheric conditions, insects/pests
Health maintenance of goods jeopardized by duration of transport	M	Low	Medium	1		Unload goods quickly if warm and moist/wet	Possible spoilage of goods, goods no longer marketable (product-dependent) due to loaded lorry parked for multiple days (weekend), forming of condensate

Usage of an unsuitable/uncertified transport unit	C, M, P	Low	High	2	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport EFISC-GTP Sector reference document §8 Transport Module	Selection of a suitable and certified transport unit	Possible hazard to food/feed safety due to: means of transportation not cleaned accordingly, previous cargo forbidden/risky, unsuitable load compartment (product-dependent)
Mixing-up of products	C	Low	Medium	1	Reg. 178/2005/EC	Check shipping papers, carry along loading papers by the load compartment	Confusion if wrong trailer is hooked up/taken along
Usage of an unsuitable/uncertified transport unit	C, M, P	Low	High	2	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport EFISC-GTP Sector reference document §8 Transport Module	Selection of a suitable and certified transport unit, dispose affected goods, if necessary	Possible hazard to food/feed safety if means of transportation are not cleaned accordingly; previous cargo were forbidden/risky; the load compartment is unsuitable (product-dependent)
Contamination of goods	C, M, P	Low	Medium	1	Reg. 183/2005/EC Reg. 852/2004/EC §4,5,6 EFISC-GTP Code §4.3.11 Transport. FISC-GTP Sector reference document §8 Transport Module	Inform head office, clarify further processing	Possible hazard to food/feed safety if: lorry falls over, sufficient hygiene during reloading not existent

TRANSPORT				4. Unloading			
Hazard	Cat.	Chance	Severity	Risk Class	Legislation	Control Measure	Remarks
Insufficient unloading conditions	M, P	Low	Medium	1		Inform head office	Possible hazard to food/feed safety if rain/non-weather-protected unloading area, severe constructional-technical deficiencies, unwanted dusts, hygienic condition and surrounding of the unloading device, spillage of oil/fuel in trimming vehicles (dozers, wheeled loaders, Bobcats)
Confusion of products or unloading areas	C	Low	Medium	1	Reg. 178/2005/EC	Prior to unloading review shipping documents/bill of delivery	

10 GUIDANCE MINIMUM MONITORING REQUIREMENTS

The EFISC-GTP operator shall implement a monitoring plan as described in the EFISC-GTP Code §4.4.3 "*Inspection sampling and analysis*". The following monitoring requirements shall provide guidance in combination with a risk assessment;

For Maize products and products thereof see the Code of good practice for AFL. B1 monitoring in Maize.

For Oilseeds and products thereof please see the Code of good practice for dioxin monitoring in oilseeds and products thereof- for some products (fatty acids, deodestillates) a batch related positive release is in place

The Sector Documents for the Starch- , Crushing and Biodiesel industry provide more information on the monitoring of the raw materials and the specific by- products

Table 1 Hazard identification

Parameter	Cereals	Oilseeds and protein crops	Legume seeds and products derived thereof	Tubers, roots and products derived thereof	Other products and products derived thereof	Sorting residues ²
Pesticides residues (CI-, P-, N-)	X	X	X	X	X	X
Heavy metals :						
- Arsenic	X	X	X	X	X	X
- Cadmium	X	X	X	X	X	X
- Lead	X	X	X	X	X	X
- Mercury	X	X	X	X	X	X
Dioxins³:						
- Dioxin	X	X	X	X	X	X
- Sum of dioxins and dioxin-like PCBs	X	X	X	X	X	X
PCBs	X	X	X	X	X	X
PAHs⁴	X	X	-	X	X	X
Mycotoxins:						
- Aflatoxin B1 5	X ⁶	-	-	-	-	X
- Deoxynivalenol (DON)	X ⁷	-	X	-	X	X
- Zearalenon (ZEA)	X ⁸	-	X	-	X	X
- Fumonisin (FUM)	X ⁹	-	-	-	-	X
- Ochratoxin A (OTA)	X ¹⁰	-	-	-	-	X
- Ergot of rye	X ¹¹	-	-	-	-	X
Salmonella¹²		X	X	X	X	X

² Sorting residues means a by-product arising from the application of the following processes: “decortications (peeling, shelling)”, “sieving/sifting” or “cleaning” as defined in the feed catalogue as per Commission Regulation (EC) 2022/1104.

³ Only applicable in case of direct artificial drying. For dioxin monitoring of oils and fats destined to feed, please refer to GTP Code of practices

⁴ Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

⁵ For the specific monitoring of aflatoxin in maize from a certain origin, please refer to mandatory requirements laid down in EFISC-GTP Code of practice for the monitoring of Aflatoxins in Maize

⁶ Only applicable to wheat, barley, maize, rye, rice and triticale.

⁷ Only applicable to wheat, barley, maize, rye, and triticale.

⁸ Only applicable to wheat, barley, maize, rye, and triticale.

⁹ Only applicable to maize.

¹⁰ Only applicable to wheat and maize.

¹¹ Only applicable to rye.

¹² This may be subject to adjustment based on HACCP and operator’s risk assessment or as per national legislation, if any.

Frequency of analysis

The following tables provide guidance to the feed/food business operator on the minimum analyses per parameter annually, depending on the annual tonnage (t) by product group;

- A. Cereal,
- B. oilseeds and protein crops,
- C. legume seeds and products derived thereof,
- D. tubers, root and products derived thereof,
- E. other products and products derived thereof

For the monitoring requirements of co-products coming from the starch and crushing industry see the relevant sector document and code of practice of Starch Europe and FEDIOL.

Table A. Minimum monitoring frequencies product group cereal

Amount in t						
Parameter	<5.000	≥5.000 – <10.000	≥10.000 – <25.000	≥25.000 –<50.000	≥50.000- <100.000	>100.000
Pesticide residues	1	2	3	5	8	10
Heavy metals:						
- Arsenic	1	2	3	5	8	10
- Cadmium	1	2	3	5	8	10
- Lead	1	2	3	5	8	10
- Mercury	1	2	3	5	8	10
Dioxins: ¹						
- Dioxin	1	1	1-2	1-2	1-2	1-3
- Sum of dioxins and dioxin-like PCBs	1	1	1-2	1-2	1-2	1-3
PCBs	1	1	1-2	1-2	1-2	1-3
PAHs ²	1	1	1-2	1-2	1-2	1-3
Mycotoxins:						
- Aflatoxin B1 ³	4	6	12	16	24	30
- Deoxynivalenol (DON) ⁴	1-2	2-3	3-6	5-8	6-12	8-15
- Zearalenon (ZEA) ⁵	1-2	2-3	3-6	5-8	6-12	8-15
- Fumonisin (FUM) ⁶	1-2	2-3	3-6	5-8	6-12	8-15
- Ochratoxin A (OTA) ⁷	1-2	2-3	3-6	5-8	6-12	8-15
- Ergot of rye ⁸	1-2	2-3	3-6	5-8	6-12	8-15

1 Only applicable in case of direct artificial drying.

2 Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

3 Only applicable to wheat, barley, maize, rye, rice and triticale.

4 Only applicable to wheat, barley, maize, rye and triticale.

5 Only applicable to wheat, barley, maize, rye and triticale.

6 Only applicable to maize.

7 Only applicable to wheat and maize.

8 Only applicable to rye.

Table B. Minimum monitoring frequencies product group oilseeds and protein crops

Parameter	Amount in t				
	<10.000	≥10.000 - <100.000	≥100.000 - <300.000	≥300.000 - <600.000	>600.000
Pesticide residues	1	2	3	6	8
Heavy metals:					
- Arsenic	1	2	3	6	8
- Cadmium	1	2	3	6	8
- Lead	1	2	3	6	8
- Mercury	1	2	3	6	8
Dioxins: ¹					
- Dioxin	1	2	3	6	8
- Sum of dioxins and dioxin-like PCBs	1	2	3	6	8
PCBs	1	2	3	6	8
PAHs ²	1	2	3	6	8
Mycotoxins:					
- Aflatoxin B1 ^{3,4}	1	2	3	6-10	6-12
- Deoxynivalenol (DON)	1	2	3	4-6	4-8
- Zearalenon (ZEA) ⁵	1	2	3	4-6	4-8
- Fumonisin (FUM)	-	-	-	-	-
- Ochratoxin A (OTA)	-	-	-	-	-
- Ergot of rye	-	-	-	-	-
Salmonella	6	12	18	36	48

1 Only applicable in case of direct artificial drying

2 Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

4 Analysis quantity in line with an HACCP-supported risk assessment (see chapter 6.4)

5 The parameter ZEA is not to be examined in rape, flax, sunflower, soy (with European origin)

Table C. Minimum monitoring requirements for legume seeds and products derived thereof

Parameter	Amount in t					
	<5.000	≥5.000 - <10.000	≥10.000 - <25.000	≥25.000 - <50.000	≥50.000- <100.000	>100.000
Pesticide residues	1	2	3	5	8	10
Heavy metals:						
- Arsenic	1	2	3	5	8	10
- Cadmium	1	2	3	5	8	10
- Lead	1	2	3	5	8	10
- Mercury	1	2	3	5	8	10
Dioxins: ¹						
- Dioxin	1	1	1-2	1-2	1-2	1-3
- Sum of dioxins and dioxin-like PCBs	1	1	1-2	1-2	1-2	1-3
PCBs	1	1	1-2	1-2	1-2	1-3
PAHs ²	1	1	1-2	1-2	1-2	1-3
Mycotoxins:						
- Aflatoxin B1	-	-	-	-	-	-
- Deoxynivalenol (DON)	1-2	2-3	3-6	5-8	6-12	8-15
- Zearalenon (ZEA)	1-2	2-3	3-6	5-8	6-12	8-15
- Fumonisin (FUM)	-	-	-	-	-	-
- Ochratoxin A (OTA)	-	-	-	-	-	-
- Ergot of rye	-	-	-	-	-	-
Salmonella	2	4	5	6	10	12

¹ Only applicable in case of direct artificial drying.

² Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

Table D. Minimum monitoring requirements for tubers, roots and products derived thereof

Parameter	Amount in t		
	<50.000	≥50.000- <100.000	>100.000
Pesticide residues¹	-	-	-
Heavy metals:			
- Arsenic	1-2	2-4	4-8
- Cadmium	1-2	2-4	4-8
- Lead	1-2	2-4	4-8
- Mercury	1-2	2-4	4-8
Dioxins: ²			
- Dioxin	1	1-2	1-3
- Sum of dioxins and dioxin-like PCBs	1	1-2	1-3
PCBs	1	1-2	1-3
PAHs ³	1	1-2	1-3
Mycotoxins:			
- Aflatoxin B1	-	-	-
- Deoxynivalenol (DON)	-	-	-
- Zearalenon (ZEA)	-	-	-
- Fumonisin (FUM)	-	-	-
- Ochratoxin A (OTA)	-	-	-
- Ergot of rye	-	-	-
Salmonella	1-4	2-8	4-12

¹ The number of analyses should be determined with regard to risk within the scope of the company;

² Only applicable in case of direct artificial drying.

³ Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

Table E. Minimum monitoring requirements for other products and products derived thereof

Pesticide residues	1	1	2	3	5	8	10
Heavy metals:							
- Arsenic	1	1	2	3	5	8	10
- Cadmium	1	1	2	3	5	8	10
- Lead	1	1	2	3	5	8	10
- Mercury	1	1	2	3	5	8	10
Dioxins:							
- Dioxin	1	1	1	1-2	1-2	1-2	1-3
- Sum of dioxins and dioxin-like PCBs	1	1	1	1-2	1-2	1-2	1-3
PCBs	1	1	1	1-2	1-2	1-2	1-3
PAHs ¹	1	1	1	1-2	1-2	1-2	1-3
Mycotoxins:							
- Aflatoxin B1	-	-	–	-	-	-	-
- Deoxynivalenol (DON)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Zearalenon (ZEA)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Fumonisin (FUM)	-	-	–	-	-	-	-
- Ochratoxin A (OTA)	-	-	–	-	-	-	-
- Ergot of rye	-	-	–	-	-	-	-
Salmonella	1	2	4	5	6	10	12

¹ Based on the legislation and the risk assessment (direct drying or region of origin).

Table x. Analyses of sorting residues

Pesticide residues	1	1	2	3	5	8	10
Heavy metals:							
- Arsenic	1	1	2	3	5	8	10
- Cadmium	1	1	2	3	5	8	10
- Lead	1	1	2	3	5	8	10
- Mercury	1	1	2	3	5	8	10
Dioxins: ²							
- Dioxin	1	1	1	1-2	1-2	1-2	1-3
- Sum of dioxins and dioxin-like PCBs	1	1	1	1-2	1-2	1-2	1-3
PCBs	1	1	1	1-2	1-2	1-2	1-3
PAHs ³	1	1	1	1-2	1-2	1-2	1-3
Mycotoxins:							
- Aflatoxin B1	2	4	6	12	16	24	30
- Deoxynivalenol (DON)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Zearalenon (ZEA)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Fumonisin (FUM)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Ochratoxin A (OTA)	1	1-2	2-3	3-6	5-8	6-12	8-15
- Ergot of rye	1	1-2	2-3	3-6	5-8	6-12	8-15
Salmonella	1	2	4	5	6	10	12

¹ Sorting residues means a by-product arising from the application of the following processes: “decortications (peeling, shelling)”, “sieving/sifting” or “cleaning” as defined in the feed catalogue as per Commission Regulation (EC) 2022/1104.

² Only applicable in case of direct artificial drying.

³ Only when requested by legislation and based on the risk assessment (direct drying or region of origin).

⁴ For the specific monitoring of aflatoxin in maize from a certain origin, please refer to mandatory requirements laid down in EFISC-GTP Code of practice for the monitoring of Aflatoxins in Maize

