

# **GUIDELINE FOR TRANSPORTATION OF FOODS**



**FOOD SAFETY AND QUALITY AUTHORITY**

**THE GAMBIA**

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## 1.0 INTRODUCTION

Agricultural products and processed food products almost always go through a transportation process before reaching the immediate processor or final consumer. Transportation serves as the link between the producer and the final consumer and between the primary producers to the processors. During the process of transportation, food may be exposed to different types of hazards and unsuitable conditions and situations that can pose a risk to its safety and quality. Such conditions may cause safety concerns even where adequate control measures have been taken earlier in the food value chain. Transportation systems should ensure that foods remain safe and suitable for human consumption upon delivery and guarantee countries to assure continued trade in raw and processed food products.

The Food Safety and Quality Authority develops this guideline with the objective to discourage and prevent practices during food transportation that create food safety risks, such as failure to properly refrigerate food, use of inappropriate transport vessel for the transportation of food, inadequate cleaning of vehicles between loads, and failure to properly handle and protect food. Safe transportation of food is a key step in ensuring that food reaching the consumer is safe to eat and is of acceptable quality. The purpose of this guideline is to assist those involved in the shipment and distribution of food to achieve the objective of protecting the food from contamination and/or spoilage during transport. The guideline is meant to apply to all forms of transportation of foods, beverages and their ingredients including food packaging materials.

### 1.1 DEFINITIONS

**Food or Foods** includes any article manufactured, sold or presented for use as food or drink (including water) for humans and any ingredient that may be mixed with food for any purpose whatsoever.

**Transportation Unit** This includes vehicles, aircraft, ships, containers, boxes, bulk tanks, trailers and any other unit used to transport food.

**Perishable Food** means a food item or ingredient that is susceptible to deterioration or loss of quality due to the microbial or enzymatic actions when such foods or ingredients are subjected to temperature abuse.

**High Risk Food** means any food in a form or state which is capable of supporting the growth of pathogenic microorganisms or the production of toxins. Example for such foods includes meat, poultry, seafood, milk and its products.

**Cross Contamination** it is the transfer of microbes or other food contaminants from one food to another.

**The Receiver** The individual or establishment who receives a food consignment this could be a food producer, retailer, wholesaler, consumer, food service establishment, such as restaurants, hotels, cafeterias and markets or supermarket managers.

**The transporter/distributor** the individual who owns and/or manages a food transportation unit

**The despatcher** the producer, processor or distributor that uses the service of transporter to distribute food

## **2.0 RESPONSIBILITIES OF PARTIES INVOLVE IN FOOD TRANSPORTATION**

As outlined in the Food Safety and Quality Act 2011, the responsibility to ensure the safety of food product is placed on the food business operator. During transportation, the transporter, receiver and the despatcher have shared responsibility in ensuring the food being transported does not pose risk to the consumers, as such Food transporters should follow the safe and hygienic practices applied during all stages of food transportation such as unloading/loading, delivery, inspection and receiving etc.

### **2. 1.0 The Transporter**

The transporter involved in transportation of food product is responsible for the following:

- 2.2.1 Application of adequate cleaning and sanitizing procedures on the transportation unit.
- 2.2.1 Efficient and safe separation of food loads to avoid cross contamination where possible
- 2.2.1 Ensure the necessary temperature controls during transportation of food
- 2.2.1 Proper disposition of food products subjected to spills or other disasters during transportation.
- 2.2.1 Establishing and following a regular maintenance program for the vehicle, especially for the cooling units.
- 2.2.1 Documentation of the cleaning and sanitary programs applied in the transportation unit where required.
- 2.2.1 Training of the Personnel in charge of cleaning and disinfecting the food transportation unit in handling chemicals and in carrying out the cleaning and disinfecting process. Conducting calibration of the cooling units as often as necessary
- 2.2.1 In case of any breakdown for the vehicle or its cooling system, an alternative vehicle conforming to the stipulated standards shall be provided promptly to transport the foods to maintain their safety and hygiene.
- 2.2.1 Vehicles transporting food should be used only for this purpose.
- 2.2.1 If a vehicle is changed from transporting non-food products to transporting food products, the establishment or the transporter has to ensure that proper and thorough cleaning is conducted to avoid food contamination. Records of this should be kept when and where possible.
- 2.2.1 The transporter should ensure that Food is loaded and unloaded from at a designated area away from physical, biological, or chemical contaminants.

### **2.2.0 The food receiver**

- 2.2.1 Is responsible to ensure, upon receipt of the transported food product, that foods are safe and of the desired quality and have been properly handled and maintained at the proper temperatures.
- 2.2.2 Ensuring that all proper food storage and display instructions are strictly followed.
- 2.2.3 Informing the manufacturer, importer, etc. when receiving foods that were not transported properly (e.g. not complying with the recommended temperature, improper separation between the food items, etc.).

### **2.3.0 The Despatcher**

Is responsible to ensure that foods are safe, are in a good state and have been maintained at proper temperature prior to being loaded into the transportation unit. The despatcher should ensure that the safety and quality conditions are maintained during transportation and delivery.

## **3.0 THE TRANSPORTATION UNIT**

The design of the food transportation unit should be such as to avoid cross contamination between simultaneous or consecutive loads. The most important consideration for a food transport unit is the ease it can be cleaned and the coats of the made up material. Construction and design of the food transportation unit should facilitate inspection, cleaning, disinfection and when appropriate enable temperature control. Temperature control means and design should not pose any form of contamination risk to the food being transported. To the extent possible, temperature controls should be documented and regularly reviewed prior to loading and offloading.

Inner surface coatings materials suitable for direct food contact should be used. These should be non-toxic, inert, or at least compatible with the transported food, and which do not transfer undesirable substances or odour to the food or adversely affect the food. Stainless steel or surface-coated with food-grade epoxy resins and unpainted hard wood are most suitable. The interior design should eliminate areas and corners that are not easy to clean and disinfect. The design of the food transportation unit should also prevent the access of insects, vermin and other contaminants from the environment, and when necessary, providing insulation against loss or gain of heat, adequate cooling or heating capacity, and facilitation of locking or sealing. Distance, weather conditions, type of food to be transported and road conditions should be put into considerations when loading and transporting food. Under no conditions should food be transported openly on open-air transportation units like donkey carts, wheelbarrows, bicycles etc should be used to transport perishable foods like meat carcasses. Human transportation units like passenger taxis and other possible human transportation units should not be used to transport food.

There should be appropriate facilities and materials conveniently available for cleaning and, where appropriate disinfecting of the food transportation unit. These materials should be well maintained to avoid food contamination. Food transportation units, facilities and materials used during food transportation should be cleaned, disinfected and maintained to avoid contamination of the food being transported. Records of cleaning procedures and cleaning schedule and records should be

maintained. Transportation Units should be cleaned and rinsed between loadings. Food transportation units should not be used to transport live animals and other non-food materials.

### **3.1 Transporting food**

During the transportation of food, two main food safety issues are to be given maximum consideration: keeping the food protected from contamination from within and out of the transportation unit and, and temperature abuse especially if the food is perishable which require keeping it cold (4°C or colder). Food must be protected from cross-contamination sources such as insects, chemicals, rodents, waste products, toxic materials, unclean equipment, unnecessary handling or other agents of public health significance during transportation. Food should be protected from contamination by keeping it covered at all times during transportation. You can achieve this by using containers with lids, clean food-grade plastic sheets etc. Materials used to cover food should be suitable for food contact and should not be permeable to water, do not contain any chemicals that could leach into the food. Aluminium foil, plastic film and clean paper may be used. Previously used materials such as newspapers, used cement bags, exercise books, etc. may contaminate food and should not be used.

### **3.2 Adequate food temperatures must be maintained.**

- Vehicles used in the transport of High Risk Foods should be regularly and effectively cleaned and sanitized before and after loading food items to minimize the possibility of contamination, food spoilage and the transmission pathogenic microorganisms and/or toxins.
- Effective cleaning removes soil and prevents the accumulation of food residues that may decompose or support the rapid growth of pathogenic organisms or the production of toxins. Effective sanitation procedures destroy organisms of public health importance. The detergents and sanitizers must be food grade. Cresols, phenolic and / or sanitizers which may transfer objectionable odours to foods must not be used.
- All High Risk Foods, including sea foods, hanging primal cuts, quarters, or sides of meat, poultry, etc. must be protected from contamination by the use of packaging or covered containers while being transported.

### **3.3 Temperature control**

When High Risk Foods are transported they should be kept cold (4°C or colder) or hot (60°C or hotter) during the journey. Alternatively time could be used (short time is spent in between distances), rather than temperature, to keep the food safe while it is being transported.

If the journey is short, insulated containers may keep the food temperature stable. During longer journeys, ice packs needs to be used to keep food cold and heat packs to keep food hot. Pre-heated or pre-cold foods should be placed in an insulated container, which should have a lid to help maintain safe temperatures.

### **3.3.1 Insulated food transport:**

Containers intended for food transport must be;

- in good condition and kept clean at all times
- used only for food
- kept away from other items such as chemicals, pet food, fuel and paint
- Be filled as quickly as possible and closed as soon as they have been filled.
- Kept closed until immediately before the food is needed or is placed in other temperature-controlled equipment.

### **3.3.2 Transport considerations**

- Containers of cold food should be placed in the coldest part of the vehicle.
- If the inside of the vehicle is air-conditioned, cold food may be transported better here rather than in the boot.
- The journey should be properly planned and should be kept as short as possible.

## **4.0 Transportation**

### **4.1 Food Carriers**

Carriers used by Food business operators should be designed, constructed, maintained, cleaned and utilized in a manner that prevents food contamination. The operator should verify that carriers are suitable for the transportation of food. For example:

- 4.1.1 Carriers are inspected by the operator prior to loading and upon receipt of products to ensure that they are free from contamination and suitable for the transportation of food;
- 4.1.2 The operator can demonstrate that the carrier has an adequate cleaning and sanitizing program in place (e.g. a written cleaning and sanitizing procedure/schedule and records are available for bulk carriers).
- 4.1.3 Where the same carriers are used for food and non-food loads, procedures are in place to restrict the type of non-food loads to those that do not pose a risk to food loads in the same shipment or to subsequent food loads (after an acceptable clean out). For example:
  - 4.1.4 The manufacturer receives a cleaning certificate and a record of the previous material transported prior to loading or unloading dual use tankers;
  - 4.1.5 The manufacturer has a program in place to verify the adequacy of cleaning (e.g. tanker inspections, visual inspections, analysis as appropriate).
  - 4.1.6 Carriers are loaded, arranged and unloaded in a manner that prevents damage and/or contamination of the food.
  - 4.1.7 Bulk tanks are designed and constructed to permit complete drainage and prevent contamination.

- 4.1.8 Where direct contact with food may occur, materials used in carrier construction are suitable for food contact.
- 4.1.9 Ingredients and food stuffs requiring refrigeration are transported at 4°C (39°F) or less, and the temperature is appropriately monitored. Frozen ingredients are transported at temperatures not below -18°C that do not permit thawing, and the temperature is appropriately monitored.
- 4.1.10 Finished product is transported under conditions that minimize microbiological, physical and chemical deterioration (e.g. thermophilic spoilage).