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**Sustainable development, food systems and circular economy**

 Draft document – Code of Good Practice 2

The following document has been compiled by the Rapporteur (Sweden) and is submitted for review and comments.

# **Chapter 2. Traders**

 Traders – buyers, wholesalers and sales departments of retail chains – adhering to the Code of Good Practice undertake to do the following:

## 2.1 Ensure proper training of staff

Your staff need to know how to handle products and to understand the impact of handling on quality, shelf life and waste, and possible loss of profit for the company. Staff working with fresh fruit and vegetables, at all stages of the distribution chain, need to be trained in how to handle the products and have a good knowledge of the consequences of shortcomings in handling and storing the products.

##  2.2 Ensure that ordered volumes of products are planned and adjusted to demand, in terms of both quantity and quality

Planning and adjusting ordered volumes to meet demand ensures that products can be delivered to retailers without unnecessary delay. Products that arrive at retail level with a larger part of their shelf life remaining will be fresher and thus have a better quality leading to reduced waste of these products at retail level and at consumer level.

Demand for products will vary according to the weather, season, holidays and celebrations. Some high-demand periods can easily be foreseen, whereas others are less predictable, thereby making planning more difficult. An efficient chain from harvest to retailer requires market knowledge and careful planning.

Planning involves estimating sales volumes of different products, but also for example trade types, varieties, sizes, quality categories, colour categories and level of maturity/stage of ripeness. Good communication along the distribution chain will help coordinate market demand with supply.

## 2.3 Improve logistics to shorten time from harvest or packing to retail

An efficient logistics chain that reduces the time from producer or packer to retailer is important for ensuring that a larger share of a perishable products’ shelf life is retained for retail and consumer levels. Such efficiency reduces quality losses and waste.

An efficient logistics chain has no more stops and reloading points than necessary. Stops are short and reloading quick. At reloading points, a strict “first-in, first-out” principle is applied.

## 2.4 Cooperate to establish unbroken cool chains at the appropriate temperature for respective products

Suboptimal cold chain processes and management lead to considerable food losses. Lower temperatures are one of the most important factors for retaining product quality during distribution. These increase shelf life by reducing respiration rate and thereby the ageing of the fruit and vegetables. Shelf life is highly influenced by temperature deviations during transport and storage.

An appropriate temperature should be kept all the time from harvest to retail. The money and effort put into cooling products to the appropriate temperature is quickly lost if products are kept at too high a temperature later in the chain. Frequent change in temperature also reduces shelf life. A good dialogue along the distribution chain should therefore include discussions on how to establish an unbroken cool chain.

There is thus much to gain in terms of reduced waste and improved quality from keeping products in appropriate climate conditions throughout distribution and retail. The higher the temperature is and the more sensitive products are, the greater the gain from an unbroken cool chain. For example, lettuce has an estimated shelf life of up to 12 days at zero degrees Celsius but only 2 days at 20 degrees; leek and cauliflower may be stored over 40 days at zero degrees but only 2 days at 20 degrees. This only refers to products that are not chilling sensitive (see annex II).

Subtropical and tropical products develop chilling injuries when kept at low, though non-freezing, temperatures. Attention should therefore be paid to appropriate storage and transport temperatures to ensure that chilling sensitive products are not subjected to temperatures below those that may cause chilling injury (see annex II).

The cool chain should be established from harvest and retained all the way through retail, including, where possible, during display for the consumer.

## 2.5 Place orders and/or change orders with enough time to allow for products to be carefully harvested, handled and cooled before dispatch

Producers need to be given enough time to be able to cool products to the appropriate temperature and to sort and pack according to specifications given. If orders are placed or changed shortly before time of dispatch, producers may have to send products that are not properly cooled. This will reduce the shelf life of the products. It may also lead to sorting and packing having to be done too quickly to allow for careful handling and for quality assurance to be carried out properly.

## 2.6 Avoid cancelling orders close to planned dispatch of products from packer/producer

When orders of perishable products are cancelled at short notice and close to dispatch, it is difficult to find a new buyer for these products and the products are often wasted.

The reason for late cancellations is often that market demand for a product, at a given time, is lower than when the buyer originally placed the order. Products may therefore still be wasted even if the order is kept. In these cases, the buyer should consider measures to promote the sale of these products.

The negative impact of a cancellation will be particularly severe if an order is cancelled for example after a producer has opened a cold store or a Controlled Atmosphere (CA) store and removed the products from the storage room. Once a CA store has been opened, the fruit has to go into the distribution chain.

## 2.7 Ensure that contracts include appropriate maturity requirements

Produce need to have reached an appropriate stage of development and/or maturity to have good eating quality and shelf life. This should be respected and developed by agreement and communication between producers, traders and retailers.

Consumers may be very eager to buy products when these first appear on the market at the beginning of the season. They may also be willing to pay a high price for these first products. It may therefore be tempting to sell products as early in their season as possible. If, however, products are marketed before they have reached the appropriate level of maturity, they may not be able to mature and ripen into a product with good eating quality, but remain hard, lack the desired taste and deteriorate quickly. These immature products will then, most likely, be thrown away by the consumer and the (disappointed) consumer may avoid buying this product again for some time.

The different varieties of many fruits, for example apples and pears, mature and ripen at different times and should therefore be marketed at different times. It is important that each variety is placed on the market at the appropriate time with respect to harvest and storage period to avoid low eating quality and products being wasted. The best way to avoid this is to have good communication with producers and respect the advice given by them.

## 2.8 Define clear specifications that will prevent food loss and avoid interventions, by agreement and communication between producers, traders and retailers

Specifications should be clearly defined, in a dialogue with producers, in such a way that they avoid causing unnecessary waste. Trading parties should be mindful of specifications that might require trimming of produce to the same size or length to fit into a specific package. This type of intervention often leads to food waste.

##  2.9 Control the ordered products at arrival

* Apply an agreed inspection procedure
* Set up a control protocol specifying the defects and the percentage of non-conforming products
* Communicating complaints/ claims to the seller in a report format and within a reasonable time after products have arrived at the buyer’s premises
* Establish, if possible, the likely reason for the non-conformity.

Rejection of products at wholesale level with reference to products not fulfilling the requirements of a quality standard or the requirements that have been agreed by buyer and seller constitutes a major cause of waste.

An added difficulty is that buyers and sellers do not always agree on whether products are in conformity. When the complaint is fair, and is justified by photos and additional supporting evidence, common agreement is facilitated.

In obvious cases, for example if all products are dirty or overripe, non-conformity is easy to establish and it may not be necessary to apply an agreed control method. Instead, photographs may suffice to communicate the extent of non-conformity to the seller. Products may be judged by the buyer to not be in conformity because the tolerances set out in the standards have been exceeded. When such non-conformity is not excessiv~~e~~ and the complaint less easy to see from a photograph, a common control method needs to be agreed on and applied to give a replicable and objective control result. With an agreed control method, the buyer can establish the percentage of products with different defects and communicate the result to the seller. The communication of non-conformity is a difficult topic, as is the understanding between the two parties concerned. Using a commonly agreed control/inspection method can also avoid products being rejected erroneously.

To guarantee a reliable and repeatable inspection result, the Organisation for Economic Co-operation and Development (OECD) has developed an inspection method to be used for conformity controls of fresh fruits and vegetables.

The method defines the number of boxes in a sample – depending on the size of the lot – that need to be taken randomly and inspected as well as the method of inspection for products in consumer packages and for products loose in the package. (See OECD Guidelines on quality inspection.)

The buyer should use a control protocol format that identifies the percentage of products with different defects found in the sample that has been taken.

The control and the results should be communicated to the seller within a reasonable time. Depending on the sensitivity of the products and how they are kept and handled after arriving at the buyer’s premises, their quality may diminish quickly.

Control results are therefore only a valid assessment of the quality of delivered products if made as soon as possible after the arrival of these products at the buyer’s premises. What is judged to be “a reasonable time” will vary according to the product and how it is stored and handled after arrival.

Areas considered high risk and likely to cause problems should be defined in contracts in advance or otherwise by a common agreement between buyer and seller.

When products do not meet specifications, this should be communicated to the dispatcher immediately and the reason for the non-conformity should be clearly explained. This will help the actors involved to take measures to avoid this problem in the future. If, for example, products show symptoms of chilling injury and there has been a known deviation from the appropriate temperature during transport, this is important information to those involved. The buyer, in agreement with the seller, should always try to find ways to avoid returning products.

## 2.10 Find alternative outlets for products that cannot be sold on the intended market

Even with the most careful planning, there will invariably be products that cannot be sold to the intended buyer. Companies in the fruit and vegetable trade should therefore have in place alternative outlets and uses for products that cannot be placed on the intended market and/or sold to the intended buyer.

The following alternatives are examples that might be considered:

* Find alternative outlets, new markets or destinations
* Reduce price and sell as
	+ - * Category II (if applicable)
			* “for home processing”
			* “for immediate consumption”
* Process (industrial)
* Donate to charity (e.g. EU Guidelines)[[1]](#footnote-2)

## 2.11 Measure the amount of produce that is wasted and specify the major causes

Companies in food production that understand the causes of food waste and measure it have a greater capacity to reduce waste at the source. This implies most companies acknowledging there is a problem, measure the loss, identify hotspots and manage the food losses through targeted interventions. Companies that regularly measure waste can identify more easily the hotspots for this waste (where it happens) and review the results to start a learning process. This is an important tool for finding measures that lead to reduced waste.

The results can be used not only for future planning but also for the implementation of measures related to handling, temperatures, transport, logistics etc. Apart from the aspect of reducing waste there is a strong business incentive to carry out this work since money spent on reducing waste is reported to give up to an estimated 14-fold return on the money spent.[[2]](#footnote-3) (For further details, see the UNECE measuring methodology in Annex III.)

1. The EU Food Donation Guidelines, for example, provide valuable advice:

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2017:361:FULL&from=EN> [↑](#footnote-ref-2)
2. Hanson, C., and P. Mitchell. 2017. The Business Case for Reducing Food Loss and Waste. Washington, DC: Champions 12.3. [↑](#footnote-ref-3)