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REPORT ON ITS TWELFTH SESSION

Addendum 2

**Chapters 1 to 4 of the UNECE
Standard for Sheep (*ovine*) Carcasses and Cuts**

Note by the secretariat: This document contains chapters 1 to 4 of the UNECE Standard for Sheep (*ovine*) Carcasses and Cuts, which the secretariat will prepare for publication in autumn 2003. Delegations are invited to check the text and report any corrections to the secretariat before 31 October 2003.

UNECE STANDARD FOR SHEEP (*OVINE*) CARCASSES AND CUTS

1. INTRODUCTION

1.1 UNECE Standards for Meat Products

1.1.1 The purpose of UNECE standards for meat products is to facilitate trade by recommending an international language for use between buyer and seller. The language describes meat items commonly traded internationally and defines a coding system for communication and electronic trade. The texts will be updated regularly, therefore meat industry members who believe that additional items are needed or that existing items are inaccurate or no longer being traded are encouraged to contact:

Agricultural Standards Unit

UNECE Trade Development and Timber Division

Palais des Nations, CH – 1211 Geneva 10, SWITZERLAND

Tel: (41) 22 917 2450, Fax: (41) 22 917 0629

E-mail: agristandards@unece.org

1.1.2 The text of this publication has been developed under the auspices of the Specialized Section on Standardization of Meat of the United Nations Economic Commission for Europe. It is part of a series of standards, which UNECE has developed or is planning to develop.

The following table gives an overview of the meat species/class categories for which standards exist/or are in different stages of development. The table also contains the species code for use in the UNECE code (see chapter 4).

Meat species/ class category	Species Code in the UNECE code for meat (see chapter 4)	Publication/adoption details
Beef (<i>bovine</i>)	1	Adopted 2000. (second edition editorially revised and corrected published 2003)
Veal (<i>bovine</i>)	2	To be developed
Pork (<i>porcine</i>)	3	Adopted 1998.
Sheep (<i>ovine</i>)	4	Adopted 2002.
Goat (<i>caprine</i>)	5	To be developed
Other Mammalian meats and processed meat products	6	To be developed
Chicken (<i>gallus domesticus</i>)	7	Under development, planned for 2004
Turkey (<i>meleagris gallopavo domesticus</i>)	8	To be developed
Other poultry products	9	To be developed

1.2 Acknowledgement

The UNECE Specialized Section on Standardization of Meat would like to acknowledge the contributions of the following delegations during the development of this publication:

Argentina	Italy
Australia	Japan
Austria	Lithuania
Bolivia	Netherlands
Brazil	New Zealand
Canada	Paraguay
China	Poland
EAN International	Russian Federation
European Union	Slovakia
Finland	Spain
France	Switzerland
Germany	United Kingdom
Greece	United States of America
Hungary	Uruguay

The UNECE Specialized Section would like to acknowledge the special contribution of AUS-MEAT for providing the photographs in this publication.

1.3 Scope

1.3.1 This standard recommends an international language for raw (unprocessed) sheep (*ovine*) carcasses and cuts marketed as fit for human consumption. It provides a variety of options to purchasers for meat handling, packing and conformity assessment, which conform to good commercial practice for meat and meat products, intended to be sold in international trade.

1.3.2 It is recognized that the appropriate legislative requirements of food standardization and veterinary control must be complied with to market beef carcasses and cuts across international borders. The standard does not attempt to prescribe those aspects, which are covered elsewhere, and throughout the standard, such provisions are left for national or international legislation, or requirements of the importing country.

1.3.4 The standard contains references to other international agreements, standards and codes of practice which have the objective of maintaining the quality after dispatch and of providing guidance to governments on certain aspects of food hygiene, labelling and other matters which fall outside the scope of this Standard. *Codex Alimentarius Commission Standards, Guidelines, and Codes of Practice*, should be consulted as the competent international reference concerning health and sanitation requirements.

1.4 Application

1.4.1 Contractors are responsible for delivering products that comply with all contractual and specification requirements and are advised to set up a quality control system designed to assure compliance.

1.4.2 For assurance that items comply with these detailed requirements, buyers may choose to use the services of an independent, unbiased third-party to ensure product compliance with a purchaser's specified options. The standard includes photographs of carcasses and selected commercial parts/cuts to facilitate a better understanding of the provisions with a view to ensuring a wide application in international trade.

1.5 Adoption and publication history

1.5.1 Following the recommendation of the Specialized Section, the Working Party on Standardization of Perishable Produce and Quality Development adopted this text at its 58th session (Reference: TRADE/WP.7/2002/9).

1.5.2 In this first edition (agreed by the Specialized Section in May 2003 – see TRADE/WP.7/GE.11/12) a number of editorial changes were made to the original text adopted. The standard is now presented in five Chapters including the former General Requirements, Ovine Specific Requirements and Carcasses and Cuts Descriptions in order to align it with the other standards. This alignment included also a reordering of the data fields in the ovine code and minor corrections to the carcasses and cuts descriptions.

2 CONDITION OF THE MEAT

2.1 All meat must originate from animals slaughtered in establishments regularly operated under the applicable regulations pertaining to food safety and inspection.

2.2 Carcasses/cuts must be:

2.2.1 Intact, taking into account the presentation.

2.2.2 Free from visible blood clots, or bone dust.

2.2.3 Free from any visible foreign matter (e.g. dirt, wood, metal particles ¹).

2.2.4 Free of offensive odours.

2.2.5 Free of obtrusive bloodstains.

2.2.6 Free of unspecified protruding or broken bones.

2.2.7 Free of contusions. ²

2.2.8 Free from freezerburn. ³

¹ When specified by the purchaser, meat items will be subject to metal particle detection.

² Contusions having a material impact on any product are not permitted.

³ Freezer-burn is localized or widespread areas of irreversible surface dehydration indicated, in part or all, by changes from original colour (usually paler), flavour (flavourless), smell (rancid), and / or tactile properties (dry, spongy).

2.3 Cutting, trimming, and boning of cuts shall be accomplished with sufficient care to maintain cut integrity and identity, and avoid scores in the lean. Ragged edges shall be removed close to the lean surfaces. Except for cuts that are separated through natural seams, all cross-sectional surfaces shall form approximate right angles with the skin surface. Minimal amounts of lean, fat, or bone shall be included on a cut from an adjacent cut. For boneless cuts, all bones, cartilage, and surface lymph glands shall be removed.

3 PURCHASER SPECIFIED REQUIREMENTS

The following subsections define the requirements that can be specified by the purchaser together with the codes to be used in the UNECE Ovine Code (see chapter 4).

3.1 Additional requirements

Additional purchaser specified requirements, which are either not accounted for in the code (e.g. if code 9 “other” is used) or that provide additional clarification to the product or packing description shall be agreed between buyer and seller and be documented appropriately.

3.2 Species/Class

The code for ovine for data field 1 as defined in 1.1.2 is 4.

3.3 Product/ Cut

The cut codes from 0000 to 9999 for data field 2 are defined in Chapter 5.

3.4 Refrigeration

Meat may be presented chilled, frozen or deep-frozen. Ambient temperatures should be such throughout the supply chain to ensure uniform internal product temperatures as follows:

Refrigeration code (Data Field 4)	Category	Description
1	Chilled	Product maintained at not less than -1.5°C or more than +7°C at any time following the post-slaughter chilling process.
2	Frozen	Product maintained at not exceeding -12°C at any time after freezing
3	Deep frozen	Product maintained at not exceeding -18°C at any time after freezing.
4 - 8	Codes not used	
9	Other	

3.5 Production History

3.5.1 Traceability

The requirements concerning production history that may be specified by the purchaser require traceability systems to be in place. Traceability requires a verifiable method of identification of bovine animals, carcasses, cartons and cuts at all stages of production. The identification numbers must be applied and recorded correctly guaranteeing a link between them. If used, traceability procedures must be agreed on by the Authority for Conformity Assessment referred to in section 3.12.

3.5.2 Origin

Origin refers to the country of origin of the product.

Origin code (data field 14)	Category	Description
0	Not specified	
1	Origin specified	Origin required.
2 – 9	Codes not used	

3.5.3 Ovine Category

Ovine category code (data field 3)	Category	Description
0	Not specified	No category specified.
1	Young lamb	Young lamb under 6 months of age which does not have any permanent incisor teeth.
2	Lamb	Lamb under 12 months of age which does not have any permanent incisor teeth.
3	Hogget	A young male or female ovine having one but not more than two permanent incisor teeth.
4	Mutton	Female or castrated male ovine having more than one permanent incisor teeth.
5	Ewe mutton	Female ovine having one or more permanent incisor teeth.
6	Wether mutton	Castrated male ovine having one or more permanent incisor teeth.
7	Ram	Adult entire or castrated male ovine having more than one permanent incisor teeth.
8	Code not used	
9	Other	

3.5.4 *Production system*

Production system code (data field 6)	Category	Description
0	Not Specified	No system specified.
1	Mainly Indoors	Production methods, which are based on indoors housing. Specific regimes need to be agreed between buyer and seller.
2	Restricted Outdoors	Production methods, which are based on limited access to free movement. Specific regimes need to be agreed between buyer and seller.
3	Pasture	Production methods, which are based access to open land. Specific regimes need to be agreed between buyer and seller.
4	Organic	Production methods, which conform to the legislation of the importing country concerning organic production. Specific regimes need to be agreed between buyer and seller.
5 – 8	Codes not used	
9	Other	Can be used to describe any other production system agreed between buyer and seller.

3.5.5 *Feeding System*

Feeding system code (data field 7a)	Category	Description
0	Not specified	.
1	Milk fed	Feeding system based on mother's milk
2	Formula fed	Feeding systems, which are milk or milk substitute based. Specific regimes need to be agreed between buyer and seller.
3	Grain based	Feeding systems, which are based on grain feeding. Specific regimes need to be agreed between buyer and seller.
4	Forage fed	Feeding systems, which are based on forage feed. Specific regimes need to be agreed between buyer and seller.
5 – 8	Codes not used	
9	Other	

3.5.6 *Slaughter Systems*

Slaughter system code (data field 8)	Category	Description
0	Not specified	
1	Conventional	Stunning prior to bleeding
2	Kosher	Appropriate ritual slaughter procedures must be satisfied.
3	Halal	Appropriate ritual slaughter procedures must be satisfied.
4 – 8	Codes not used	
9	Other	Any other authorized method of slaughter must be specified by seller/buyer.

3.5.7 *Post slaughter system*

Post-slaughter processing codes (data field 9)	Category	Description
0	Not specified	
1	Specified	Post slaughter system specified as agreed between buyer and seller.
2 – 9	Codes not used	

NOTE 1: Spinal cord removal: Individual market requirements will have specific regulations governing the removal of the spinal cord, nervous and lymphatic tissues, where applied. Regulations applicable to spinal cord removal, will specify at what stage the carcass and/or cut must have the spinal cord removed. If required there must be total removal.

NOTE 2: The following list describes some common post slaughter processes that may be agreed between buyer and seller. These requirements are not included in the ovine specific coding.

- Dressing specification
- Electrical stimulation
- Method of carcass suspension
- Neck Stringing
- Chilling regimes
- Maturation process

3.6 Fat limitations and evaluation of fat thickness in certain cuts

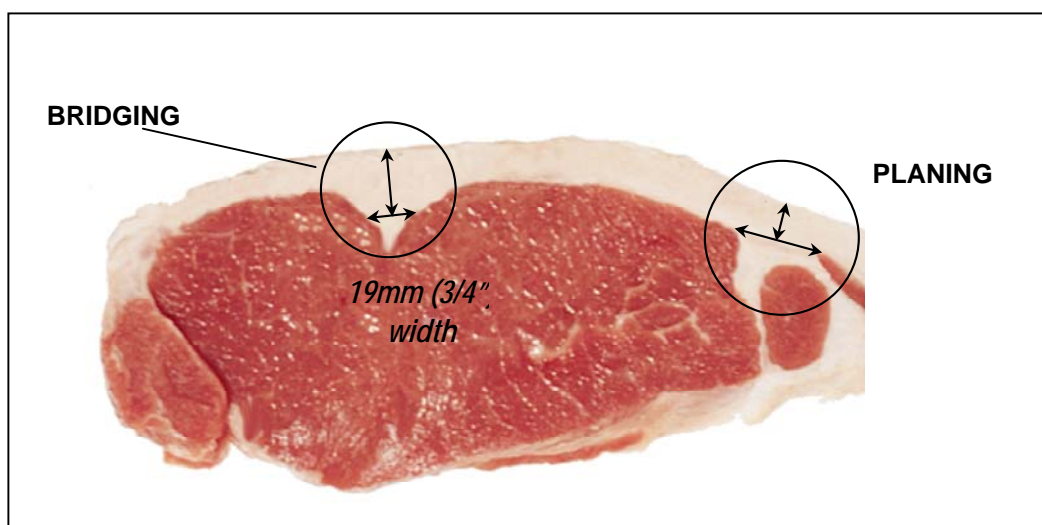
3.6.1 The purchaser can specify the maximum fat thickness of carcasses, sides and cuts. Allowable fat limitations are as follows:

Fat thickness code (data field 12)	Category
0	Not specified
1	Peeled, denuded, surface membrane removed
2	Peeled, denuded
3	0 - 3 mm maximum fat thickness or as specified
4	3 - 6 mm maximum fat thickness or as specified
5	6 - 9 mm maximum fat thickness or as specified
6	9 - 12 mm maximum fat thickness or as specified
7	12-15 mm maximum fat thickness or as specified
8	15mm and over or as specified
9	Other

3.6.2 Trimming

Trimming of external fat shall be accomplished by smooth removal along the contour of underlying muscle surfaces. Beveled fat edges alone do not substitute for complete trimming of external surfaces when required. Fat thickness requirements may apply to surface fat (subcutaneous and / or exterior fat in relation to the item), and seam (intermuscular) fat as specified by the purchaser. Two definitions are used to describe fat trim limitations:

- Maximum fat thickness at any one point. Evaluated by visually determining the area of a cut which has the greatest fat depth, and measuring the thickness of the fat at that point.
- Average (mean) fat thickness. Evaluated by visually determining and taking multiple measurements of the fat depth of areas where surface fat is evident only. Average fat depth is determined by computing the mean depth in those areas.



Actual measurements of fat thickness (depth) are made on the edges of cuts by probing or scoring the overlying surface fat in a manner that reveals the actual thickness and accounts for any natural depression or seam which could affect the measurement. When a natural depression occurs in a muscle, only the fat above the portion of the depression which is more than 19 mm/ 3/4" in width is considered (known as bridging; See Figure 1). When a seam of fat occurs between adjacent muscles, only the fat above the level of the involved muscles is measured (known as planing; See Figure 1).

However, when fat limitations for Peeled/Denuded⁴ or Peeled/Denuded, Surface Membrane Removed⁵ are specified, the bridging method shall be used for evaluating fat above a natural depression in a muscle and fat occurring between adjacent muscles.]

3.7 Ovine grading systems

The coding system offers the possibility for purchasers to specify a grading/ classification system.

Ovine grading system code (data field 10)	Category	Description
0	Not specified	
1	Specified	For more information on individual grading systems contact the appropriate standardization authority, or Agricultural Standards Unit UNECE Trade Division Palais des Nations, CH – 1211 Geneva 10, SWITZERLAND E-mail: agristandards@unece.org

3.8 Meat and fat colour and pH

Normally, lean meat and fat, depending on the specific species, demonstrates a characteristic colour and pH. Specific requirements regarding colour and pH if required need to be agreed between buyer and seller and are not provided for in the coding system.

⁴ Peeled/Denuded – The term “Peeled” implies surface fat and muscle separation through natural seams so that the resulting cut’s seamed surface (“silver” or “blue tissue”) is exposed with remaining “flake” fat not to exceed 1.0 inch (2.5cm) in the longest dimension and/or 0.125 inch (3mm) in depth at any point. The term “denuded” implies all surface fat is removed so that the resulting cuts seamed surface (“silver” or “blue tissue”) is exposed with remaining “flake” fat not to exceed 1.0 inch (2.5cm) in any dimension and/or 0.125 inch (3mm) in depth at any point.

⁵ Peeled/Denuded, Surface Membrane Removed – When the surface membrane (“silver” or “blue tissue”) is required to be removed (skinned), the resulting cut surface shall expose at least 90 percent lean with remaining “flake” fat not to exceed 0.125 inch (3mm) in depth.

3.9 Weight ranging of Carcasses / cuts.

Weight range code (data field 11)	Category	Description
0	Not specified	
1	Specified	Range required
2 – 9	Codes not used	

3.10 Packing, storage, and transport

3.10.1 Description and provisions

The primary packaging is the primary covering of a product and must be of food grade materials. The secondary packaging contains products packaged in their primary packaging. During the storage and transport, the meat must be packaged to the following minimum requirements:

Carcasses and quarters

- Chilled with or without packaging
- Frozen / deep frozen packed to protect the products

Cuts - Chilled

- I.W. (Individually wrapped)
- Bulk packaged (plastic or wax-lined container)
- Vacuum-packed (VP)
- Modified atmosphere packaging (MAP)
- Other

Cuts - Frozen / deep frozen

- I.W. (Individually wrapped)
- Bulk packaged (plastic or wax-lined container)
- Vacuum-packed
- Other

The conditions of storage before dispatch and the equipment used for transportation shall be appropriate to the physical and in particular the thermal condition of the meat (chilled, chilled in a modified atmosphere, frozen, or deep-frozen) and shall be in accordance with the requirements of the importing country. Attention is drawn to the provisions of the *UNECE Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for Such Carriage (ATP)*.

3.10.2 Codes

Packing code (data field 13)	Category
0	Not specified
1	Carcases, halve carcasses and quarters – without packaging
2	Carcases, halve carcasses and quarters – with packaging
3	Cuts – I.W. (Individually Wrapped)
4	Cuts – Bulk packaged (plastic or wax-lined container).
5	Cuts – Vacuum-packed (VAC)
6	Cuts – Modified Atmosphere Packed (MAP).
7	Cuts – Other.

3.11 Labelling information to be mentioned on or fixed to the marketing units of meat

3.11.1 Without prejudice to national requirements of the importing countries, the following table contains information that must be listed on product labels, as designated by an “x”, for unpackaged carcasses, quarters, and cuts, and for packaged or packed meat items.

Labelling information	Unpackaged carcasses, quarters and cuts	Packaged or packed meat
Health stamp	X	X
Slaughter number or batch number	X	X
Slaughter date	X	
Packaging date		X
Name of the product		X
Use-by information as required by each country		X
Storage methods: chilled, frozen, deep-frozen		X
Storage conditions		X
Details of packer or retailer		X ⁶
Quantity (number of pieces)		X ⁶
Net weight		X ⁶

3.11.2 Processors may choose to list certain claims on product labels. Any such product claims must be verifiable. Examples of such product claims include the following:

⁶ This information can also be provided in accompanying documentation.

- ◆ pH, lean and fat colour
- ◆ production and processing systems
- ◆ classification / grading
- ◆ slaughtering procedures
- ◆ characteristics of the livestock, production and feeding systems

3.12 Provisions concerning conformity assessment requirements

The purchaser may request third-party conformity assessment of the product's quality/grade/classification, purchaser-specified options of the standard, and/or animal identification. Individual conformity assessments or combinations may be selected as follows:

Quality/Grade/Classification Conformity Assessment (Quality): a third party examines and certifies that the product meets the quality level requested. The name of the third-party certifying authority and quality grade standard to be used must be designated as noted in 3.1.

Trade Standard Conformity Assessment (Trade Standard): a third party examines and certifies that the product meets the purchaser-specified options as specified in this trade standard, except for quality level. The name of the third-party certifying authority must be designated as noted in 3.1. Optionally, the purchaser may indicate specific purchaser specified options to be certified after the name of the third-party certifying authority.

Animal or batch Identification Conformity Assessment (Animal/batch ID): a third party certifies that the product meets specified requirements. The name of the third-party certifying authority and the requirements must be designated as noted in 3.1.

Conformity assessment code (data field 5)	Category
0	Not specified
1	Quality/Grade/Classification (Quality) Conformity Assessment
2	Trade Standard Conformity Assessment
3	Animal/batch Identification (Animal/batch ID) Conformity Assessment
4	Quality and Trade Standard Conformity Assessment
5	Quality and Animal/batch ID Conformity Assessment
6	Trade Standard and Animal/batch ID Conformity Assessment
7	Quality, Trade Standard, and Animal/batch ID Conformity Assessment
8	Code not used
9	Other

4 OVINE SPECIFIC CODING

4.1 UNECE code for ovine carcasses and cuts

The UNECE ovine code has 15 fields and 20 digits (3 digits not used) and is a combination of the use codes defined in chapter 3. The following table indicates how the different data fields are put together as well as their used code range.

No.	Name	Section	Code Range
1	Species/Class	3.2	0 – 9
2	Product/Cut	3.3/ 5	0 - 9999
3	Category	3.5.3	0 - 9
4	Refrigeration	3.4	0 - 9
5	Conformity assessment	3.12	0 - 9
6	Production system	3.5.4	0 - 9
7a	Feeding system	3.5.5	0 – 9
7b	Field not used		0 – 9
8	Slaughter system	3.5.6	0 – 9
9	Post slaughter system	3.5.7	0 – 9
10	Grading system	3.7	0 – 9
11	Weight Range	3.9	0 – 9
12	External Fat	3.6	0 – 9
13	Packing	3.10	0 – 9
14	Origin	3.5.2	0 - 9
15	Field not used		00 - 99

4.2 Example for the UNECE Ovine Code

The following example describes a chilled, vacuum packaged, rack that was third party certified, trimmed to 3-6 mm max fat thickness and weight range specified from a lamb that was pasture raised, forage fed and had origin specified.

This item has the following UNECE Ovine code: **44932211340000145100**

No.	Name	Requirement	Code value
1	Species/Class	Ovine	4
2	Product/Cut	Rack	4932
3	Category	Lamb	2
4	Refrigeration	Chilled	1
5	Conformity assessment	yes	1
6	Production system	Pasture	3
7a	Feeding system	Forage	4
7b	Field not used		0
8	Slaughter system	Not specified	0
9	Post slaughter system	Not specified	0
10	Grading system	Not specified	0

11	Weight Range	specified	1
12	External Fat	3-6 mm max. fat thickness	4
13	Packing	Cuts vacuum packaged	5
14	Origin	Specified	1
15	Field not used		00

4.3. EAN•UCC CODIFICATION SYSTEM

4.3.1 Purpose of the EAN•UCC System

The system is widely used in the world to enhance communication between buyers and sellers and third party conformity assessment entities. It is an identification and communication system standardized for use across international borders. It is managed by EAN International, together with national EAN coding authorities around the world, and by the Uniform Code Council (UCC) in the USA and Canada.

The system is designed to overcome the limitations of using company, industry or country specific coding systems and to make trading more efficient and responsive to trading partners. The use of the EAN•UCC System improves the efficiency and accuracy of international trade and product distribution by unambiguously identifying goods, services and locations.

It is also used in electronic data interchange (EDI). EAN/UCC codes can be represented by data carriers (e.g. bar code symbols) to enable electronic reading wherever required in the trading process.

Contact addresses for EAN•UCC System details:

EAN International

145 rue Royale
B-1000 Brussels
Belgium

Tel: +32-2-227 10 20

Fax: +32-2-227 10 21

e-mail: info@ean.be

Uniform Code Council (UCC)

Princeton Pike Corporate Centre
1009 Lenox Drive, suite 202
Laurenceville
New Jersey 08648

USA

Tel: +1-609-620 0200

Fax: +1-609-620 1200

4.3.2 Use of the UNECE Ovine code in the EAN•UCC system

EAN•UCC system uses Application Identifiers as prefixes to identify the meaning and format of the data that follows it. It is an open standard, which can be used and understood by all companies in the international supply chain, regardless of the company that originally issued the codes.

The UNECE code defined in section 4.1 has been assigned the EAN•UCC Application Identifier (**7002**) in the UCC/EAN -128 standard.

Example 1:

(01) 91234567890121 (3102) 000076 (7002) 42331049320041115000 (15) 19990801
(10) 000831

(01) Global Trade Item Number (GTIN)
(3102) Net Weight, kilograms
(7002) UNECE Standard code
(15) Use by date
(10) Batch number

[barcode to be included in the final document]

Example 2:

(01) 99312345678917 (3102) 004770 (13) 000105 (21)12345678

(01) Global Trade Item Number (GTIN)
(3102) Net Weight, kilograms
(13) Slaughter/Packing Date
(21) Serial Number

Other data, such as the UNECE Ovine Code, refrigeration, grade and fat depth can be linked to the GTIN via Electronic Data Interchange (EDI - EANCOM8 messages).

[barcode to be included in the final document]

4.3.3 *Application of the system in practice*

[Associated pictures are to be included in the final document]

(1) The customer orders, using the UNECE Standard for Ovine Carcases and Cuts coding scheme.

[picture]

(2) On receipt of the order, the supplier translates the UNECE codes into its own trade item codes (i.e., Global Trade Item Number).

[picture]

(3) The supplier delivers the order to the customer. The goods are marked with the UCC/EAN-128 bar code standard.

[picture]

(4) The customer receives the order and the UCC/EAN-128 bar code scanned, thus allowing for the automatic update of commercial, logistics and administrative processes.

[picture]

(5) The physical flow of goods, marked with EAN.UCC standards, may be linked to the information flow using electronic data interchange (EDI – EANCOM® messages).

[picture]