



**Economic and Social  
Council**

Distr.  
GENERAL

TRADE/WP.7/GE.11/2005/4  
3 February 2005

ORIGINAL : ENGLISH

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ECONOMIC COMMISSION FOR EUROPE

COMMITTEE FOR TRADE, INDUSTRY AND  
ENTERPRISE DEVELOPMENT

Working Party on Agricultural Quality Standards

Specialized Section on Standardization of Meat  
14th Session, 11 - 15 April 2005, Geneva

Item 4 of the provisional agenda

**DRAFT REVISION OF THE UNECE STANDARD FOR  
PORCINE MEAT CARCASSES AND CUTS\***

**Note by the secretariat:** The delegation of the United States has prepared an updated version of the draft revision of the UNECE Standard for Porcine Meat. This document contains chapters 1 - 4 and should be read together with the cuts descriptions (chapter 5) contained in 2005/5 and 2005/5/Add.1. The text represents the outcome of the discussions at the meetings of rapporteurs in 2004 (Poland, Lithuania).

\* This document has been submitted after the deadline by the delegation of the United States of America.

## 1. INTRODUCTION

### 1.1 UNECE Standards for Meat Products

- 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 the UNECE Secretariat (see Annex 1 for the address).
- 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 contains the species for which UNECE standards exist/or are in different stages of development and their code for use in the UNECE meat code (see chapter 4).

For further information about publication details please visit the UNECE website at:

[www.unece.org/trade/agr/standard/meat/meat\\_e.htm](http://www.unece.org/trade/agr/standard/meat/meat_e.htm)

Annex II contains a description of the EAN/UCC system, which contains a specific application identifier for the implementation of the UNECE Code.

<b>Species</b>	<b>Species code (Data field 1)</b>
Bovine (Beef)	10
Bovine (Veal)	11
Porcine (Pork)	30
Ovine (Sheep)	40
Caprine (Goat)	50
Llama	60
Alpaca	61
Chicken	70
Turkey	71

## 1.2 Scope

- 1) This standard recommends an international language for raw (unprocessed) pork (*porcine*) carcasses and cuts from domesticated pigs (porcine) 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.
- 2) It is recognized that the appropriate legislative requirements of food standardization and veterinary control must be complied with to market pork (*porcine*) carcasses and cuts. 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.
- 3) 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.

## 1.3 Application

- 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.
- 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 cuts to facilitate a better understanding of the provisions with a view to ensuring a wide application in international trade.

## 1.4 Adoption and publication history

- 1) The first edition of this standard was published 1998. This second edition aligns the standard with other UNECE standards for meat and was adopted by the Working Party on Agricultural Quality Standards at its 61<sup>st</sup> session in 2003.
- 2) Publication history – to be added<sup>[J2]</sup>
- 3) UNECE Standards for meat undergo complete review three years after publication. If necessary, new editions are published following the review. Changes requiring immediate attention are published on the UNECE homepage at:

[www.unece.org/trade/agr/standard/meat/meat\\_e.htm](http://www.unece.org/trade/agr/standard/meat/meat_e.htm)



## 2. MINIMUM REQUIREMENTS

- 1) All meat must originate from animals slaughtered in establishments regularly operated under the applicable regulations pertaining to food safety and inspection.
- 2) Carcasses/cuts must be:
  - Intact, taking into account the presentation.
  - Free from visible blood clots, or bone dust.
  - Free from any visible foreign matter (e.g. dirt, wood, metal particles <sup>1</sup>).
  - Free of offensive odours.
  - Free of obtrusive bloodstains.
  - Free of unspecified protruding or broken bones.
  - Free of contusions having a material impact on the product.
  - Free from freezerburn. <sup>2</sup>
- 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 may be included on a cut from an adjacent cut. For boneless cuts, all bones, cartilage, and visible 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 Porcine 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

The code for porcine in data field 1 as defined in 1.1.2 is 30.

### 3.3 Product/Cut

The porcine cuts listed in this document are recommendations and not necessarily a complete document. Different cuts of meat will be added or deleted as necessary as updates of this document evolve. Many of these cuts are traded internationally under the auspices of more than one trade name. The objective of utilizing the United Nations Standard Product and Service Code (UNSPSC) system was to create harmonization in the codification system, which will in turn facilitate the use of this document. A more thorough description of UNSPSC is provided in Chapter 5.

### 3.4 Refrigeration

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

<sup>2</sup> Freezer-burn is localized or widespread areas of irreversible surface dehydration indicated, in part or all, by changes from original colour (usually paler) and / or tactile properties (dry, spongy).

Meat may be presented chilled, frozen or deep-frozen. Depending on the refrigeration method used, tolerances for product weight to be agreed between buyer and seller. 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	Internal product temperature maintained at not less than -1.5°C or more than +7°C at any time following the post-slaughter chilling process
2	Frozen	Internal product temperature maintained at not exceeding -12°C at any time after freezing
3	Deep frozen	Internal product temperature 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 porcine animals, carcasses, cartons and cuts at all stages of production. Traceability records must be able to substantiate the claims being made and the conformity of the procedures must be certified in accordance with 3.12.

#### ▪ 3.5.2 Porcine category

Porcine category code (data field 5)	Category	Description
0	Not specified	No category specified
1	Hog/barrow	Castrated male porcine
2	Gilt	Female porcine, unfarrowed
3	Hog/Barrow and/or Gilt	Porcine
4	Sucker	Young porcine less than 15 kg (hot carcass weight), head-on
5	Boar	Mature intact porcine
6	Sow	Female porcine that has farrowed
7	Young pig	Young porcine less than 35 kg (hot carcass weight), head-on
8	Code not used	
9	Other	

### ▪ 3.5.3 Production system

The purchaser may specify a production system. In any case the production has to be in conformity with the regulation in force in the importing country. If no such regulation exists the regulation of the exporting country shall be used.

Production system code (data field 6)	Category	Description
0	Not Specified	No system specified
1	Indoors	Production methods, which are based on indoors housing
2	Outdoors	Production methods, which are based on outdoor housing for part of their lives
3	Organic	Production methods, which conform to the legislation of the importing country concerning organic production
4 – 8	Codes not used	
9	Other	Can be used to describe any other production system agreed between buyer and seller

### ▪ 3.5.4 Feeding system

The purchaser may specify a feeding system. In any case the feeding has to be in conformity with the regulation in force in the importing country. If no such regulation exists the feeding system shall be agreed between buyer and seller.

Feeding system code (data field 7)	Description
00	Not specified
01	Conventional
02-09	Codes not used
10	FM free
11	FM & IAO free
12	FM, IAO & GP free
13	FM, IAO, GP & GMO free
14	FM & GP free
15	FM, GP & GMO free
16	FM & GMO free
17-29	Codes not used
30	IAO free
31	IAO & GP free
32	IAO & GMO free
33	IAO, GP & GMO free
34-49	Codes not used
50	GP free
51	GP & GMO free
52-59	Codes not used
60	GMO free
61-98	Codes not used
99	Other

The definitions of the terms below have to be in conformity with the legislation of the importing country:

FM free      Free from fish meal.

IAO free	Free from ingredients of animal origin.
GP free	Free from growth promoters.
GMO free	Free of products derived from genetically modified organisms.

▪ **3.5.5 Slaughter system**

Slaughter system code (data field 8)	Category	Description
0	Not specified	
1	Specified	Slaughter system specified as agreed between buyer and seller
2 – 9	Codes not used	

▪ **3.5.6 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 porcine specific coding.

- Dressing specification
- Chilling regimes

### 3.6 Fat limitations and evaluation of fat thickness in certain cuts

#### 3.6.1 Definition of codes

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

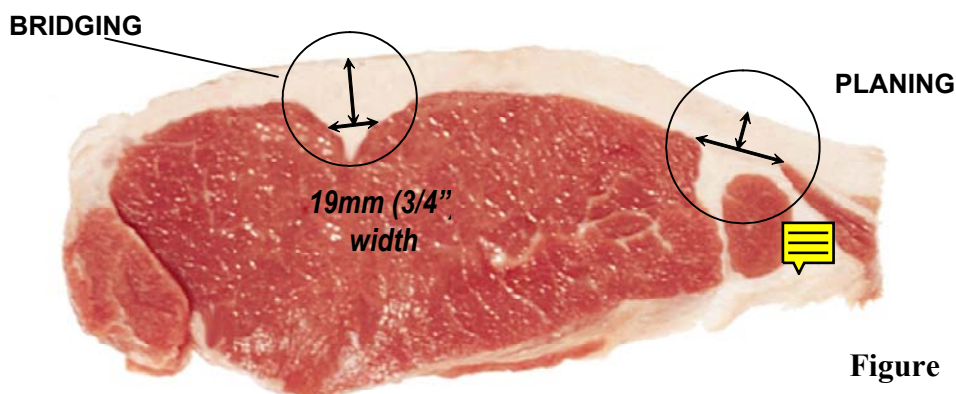
Fat thickness code (data field 10)	Category
0	Not specified
1	Peeled, denuded, surface membrane removed
2	Peeled, 75% lean surface exposed
3	0 - < 0.5 cm fat thickness or as specified
4	0.5 - < 1.0 cm maximum fat thickness or as specified
5	1 - < 1.5 cm maximum fat thickness or as specified
6	1.5 - < 2.0 cm maximum fat thickness or as specified
7	2.0 - < 2.5 cm maximum fat thickness or as specified
8	Over 2.5 cm fat thickness or as specified
9	Other

**NOTE 1:** Location of fat measurements on carcasses to be agreed by buyer and seller (e.g. rib sites).

#### 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<sup>[13]</sup>.



**Figure 1.**



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 or 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/Denuded<sup>3</sup> or Peeled/Denuded, Surface Membrane Removed<sup>4</sup> 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 Porcine quality system

Porcine quality system code (data field 11)	Category	Description
0	Not specified	
1	Official	Quality classifications based on an official quality system of the exporting country
2	Company	Quality classifications based on sellers' quality systems
3	Industry	Quality classifications based on an industry wide quality system
4-8	Codes not used	
9	Other	Other quality classifications agreed between buyer and seller

**NOTE 1:** Any system should meet or exceed the official quality system of the exporting country.

### 3.8 Meat and fat colour, marbling, and pH

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

### 3.9 Weight ranging of carcasses and cuts

Weight range code (data field 12)	Category	Description
0	Not specified	
1	Specified	Range required
2 – 9	Codes not used	

<sup>3</sup> 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.

<sup>4</sup> 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.

### 3.10 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:

##### **Carcases and quarters**

- Chilled, frozen or deep frozen with or without packaging

##### **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 (VP)
- 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 Definition of 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	Layer packed with plastic or wax-lined dividers
8	Code not used
9	Other

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

All labeling information must be verifiable (See also 3.5.1).

#### **▪ 3.11.1 Mandatory Information**

Without prejudice to national or importing country requirements this standard requires at least the following information to be provided with the unpackaged or packaged products (stamped on the product, provided on the product label or provided in accompanying documentation):

- Health stamp
- Name of the product
- Packaging date (for packaged products only)
- Storage conditions chilled, frozen, deep-frozen
- Details of packer, processor or retailer
- Net weight

#### **▪ 3.11.2 Additional Information**

Additional information may be listed on product labels as specified by national or importing country requirements, or at the buyer's request or as chosen by the processor. Examples of such product claims include the following:

**Examples of such product claims include the following:**

- Country of birth
- Country(ies) of raising
- Country of slaughter
- Country(ies) of processing/cutting
- Country(ies) of packing
- Country of origin: In this standard the term "country of origin" is reserved to indicate that birth, raising, slaughter, processing/cutting and packing have taken place in the same country.
- Production and feeding systems
- Slaughter and post-slaughter systems
- Further processing
- Characteristics of the livestock
- Processing date
- Use-by-date
- Quality/Grade/Classification
- Lean pH, and lean/fat colour
- Quantity (number of pieces)

### 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.

Porcine or batch identification conformity assessment (porcine / 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 14)	Category
0	Not specified
1	Quality/grade/classification (quality) conformity assessment
2	Trade standard conformity assessment
3	Porcine/batch identification (Porcine / batch ID) conformity assessment
4	Quality and trade standard conformity assessment
5	Quality and porcine / batch ID conformity assessment
6	Trade standard and porcine / batch ID conformity assessment
7	Quality, trade standard, and porcine / batch ID conformity assessment
8	Code not used
9	Other

## 4. UNECE CODE FOR PURCHASER REQUIREMENTS FOR PORCINE MEAT

### 4.1 Definition of the code

The UNECE Code for Purchaser Requirements for Porcine Meat has 14 fields and 20 digits (2 digits not used) and is a combination of the use codes defined in chapter 3.

Annex II contains a description of the EAN/UCC system, which contains a specific application identifier for the implementation of the UNECE code.

No.	Name	Section	Code Range
1	Species	3.2	00 – 99
2	Product/cut	3.3 / 5	0000 - 9999
3	Field not used		00 - 99
4	Refrigeration	3.4	0 – 9
5	Category	3.5.2	0 – 9
6	Production system	3.5.3	0 – 9
7	Feeding system	3.5.4	00 – 99
8	Slaughter system	3.5.5	0 – 9
9	Post slaughter system	3.5.6	0 – 9
10	Fat thickness	3.6.1	0 – 9
11	Quality	3.7	0 – 9
12	Weight ranging	3.9	0 – 9
13	Packing	3.10.2	0 – 9
14	Conformity assessment	3.12	0 – 9

## 4.2 Example

The following example describes a chilled, vacuum packaged, porcine leg long cut (style 1) of a specified weight range, trimmed to less than 0.5 cm fat thickness, from a hog/barrow raised in an indoor production system with a conventional feeding system, slaughtered and processed under specified requirements, with a company standard quality system applied.

This item has the following UNECE Porcine code: **304013111011132150**

No.	Name	Requirement	Code value
1	Species	Porcine	30
2	Product/Cut	Leg Long Cut – S1	UNSPSC code set
3	Field not used	-	-
4	Refrigeration	Chilled	1
5	Category	Hog/barrow	1
6	Production system	Indoors	1
7	Feeding system	Conventional	01
8	Slaughter system	Specified	1
9	Post slaughter system	Specified	1
10	Fat thickness	0 - < 0.5 cm fat	3
11	Quality	Company	2
12	Weight ranging	Specified	1
13	Packing	Vacuum Packed	5
14	Conformity assessment	Not Specified	0