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Working Party on Agricultural Quality Standards

Specialized Section on Standardization of Meat  
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REPORT ON ITS TWELFTH SESSION

Addendum 4

**Draft Revision of the UNECE  
Standard for Pork (*porcine*) Carcasses and Cuts**

**Note by the secretariat:** This document contains a draft revision of the UNECE Standard for Pork (porcine) Carcasses and Cuts for discussion at the meeting of rapporteurs in St. Petersburg (22-24 September 2003).

## 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 for meat (see chapter 4).

<b>Meat species/ class category</b>	<b>Species Code in the UNECE code for meat (see chapter 4)</b>	<b>Publication/adoption details</b>
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.
<b>Goat (<i>caprine</i>)</b>	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:

Australia	Hungary
Bolivia	Lithuania
Brazil	New Zealand
EAN Brazil	Poland
EAN International	Russian Federation
European Union	Switzerland
France	United Kingdom
Germany	United States
Greece	Uruguay

The UNECE Specialized Section would like to acknowledge the special contribution of the delegation of the United States for preparing the first draft version of this standard and the photographs.

## 1.3 Scope

1.3.1 This standard recommends an international language for raw (unprocessed) carcasses and / or associated meat cuts from domesticated pigs younger than 10 months, marketed as fit for human consumption. Head on whole carcase weight should be a minimum of 50 kg. 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 pork 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

Following the recommendation of the Specialized Section, the Working Party on Agricultural Quality Standards adopted this text at [its ..... session (Reference: .....).]

## 2 MINIMUM 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 <sup>1</sup>).

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. <sup>2</sup>

2.2.8 Free from freezerburn. <sup>3</sup>

2.3 Cutting, trimming, and boning of cuts shall be accomplished with sufficient care to maintain cut integrity and identity, and avoid (**excessive**) 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 sub-sections define various requirements to be specified by the purchaser together with the codes to be used in the UNECE Code for Pork (porcine) Carcasses and Cuts.

### 3.1 Additional requirements

Additional purchaser specified requirements, which are either not accounted for in the code (e.g. if code "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 species is Pork and refers to product produced from the domesticated swine. The code for pork in data field 1 as defined in 1.1.2 is 3.

### 3.3 Product / Cut

The four-digit product codes from 0000 to 9999 are as defined in Chapter (?). (data field 2)

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

<sup>2</sup> Contusions having a material impact on any product are not permitted.

<sup>3</sup> 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).

### 3.4 Porcine Category (data field 3)

The standard provides for categorisation of porcine into seven categories:

- Not specified
- Gilt – young female porcine under 10 months of age
- Hog – castrated young male porcine under 10 months of age
- Young Boar – entire young male porcine under 10 months of age
- Boar – mature male porcine kept for service
- Sow – mature female porcine that has farrowed
- Other

Category	
0	Not specified
1	Hog and / or Gilt – young porcine under 10 months of age
2	Gilt – young female porcine under 10 months of age
3	Hog – castrated young male porcine under 10 months of age
4	Young Boar – entire young male porcine under 10 months of age
5	Boar – mature male porcine kept for service
6	Sow – mature female porcine that has farrowed
9	Other

### 3.5 Refrigeration (data field 4)

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:

	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.
9	Other	

### 3.6 Conformity Assessment (data field 5)

0	Not specified
1	Grade/Classification specified.
2	Third Party Certification specified.
3	Origin and production history specified
4	Grade/Classification and Third Party Certification specified.
5	Grade/Classification and Origin and production history specified
6	Third Party Certification and Origin and production history specified

7	Grade/Classification, Third Party Certification and Origin and production history specified
9	Other

### 3.7 Production (data field 6)

(The whole of this section needs revisiting as you could have Intensive & Organic or other combinations) – an agenda item for the spring 2002 meeting?)

0	Not Specified
1	<i>Intensive Systems</i> describe production methods which include restricted stocking, housing and feeding regimes developed to promote rapid growth. Specific standards need to be defined between buyer and seller.
2	<i>Extensive/Outdoor Systems</i> describe production methods which include relatively unrestricted housing. Specific standards need to be defined between buyer and seller.
3	<i>Organic systems</i> describe production methods which follow internationally recognised standards or national standards if they are more restrictive. Specific standards need to be defined between buyer and seller.
4	<i>Husbandry systems</i> that control specific animal treatments such as Growth Promotants (GP) which follow internationally recognised standards or national standards if they are more restrictive
9	<i>Other systems</i> must be described by the seller.

### 3.8 Feeding systems (data field 7)

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 regulation of the exporting country shall be used.

A number of options commonly used in trade are listed below with indicative descriptions.

Feeding System Code	Feeding System(s) code								
	No System Specified	Conventional	Fish free	Meal free	IAO free ****	AGP free	GMO free	Organic?	Other
00	Not Specified								
01		Conventional							
02-09									Codes not used
10			Fish Meal free						
11			Fish Meal free		& IAO free				
12			Fish Meal free,		IAO free,	& AGP free			



99								Other feeding system
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\*\*\*\* IAO free Free From Ingredients of Animal Origin (? Of mammalian origin)

AGP free Free From Antibiotic Growth Promoters  
 GMO free Free of products derived from Genetically Modified Organisms

The definitions of the terms above have to be in conformity with the legislation of the importing country.

### 3.9 Slaughter Systems (data field 8)

0	Not specified
1	Specified

### 3.10 Post slaughter processing (data field 9)

0	Not specified
1	Specified

### 3.11 Weight range of meat cuts (data field 11)

Within the scope of this Standard and coding system provision exists to specify the weight of the dressed head on carcass from which the cut is derived.

Weight Range	
0	Not specified
1	50 kg. & < 60 kg. Carcase Weight
2	60 kg. & < 70 kg. Carcase Weight
3	70 kg. & < 80 kg. Carcase Weight
4	80 kg. & < 90 kg. Carcase Weight
5	90 kg. & < 100 kg. Carcase Weight
9	Other

### 3.12 Provisions concerning external fat (data field 12)

External fat is measured in accordance with the provision outlined in the General Requirements. This standard provides for the codification of porcine cuts in international trade to have external fat levels specified to the following categories:

0	Not specified
1	Peeled, denuded, surface membrane removed
2	Peeled, 75% lean surface exposed
3	0 - < 5 mm. 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 - <2.0cm. maximum fat thickness or as specified
7	2.0 - < 2.5cm. maximum fat thickness or as specified
8	Over 2.5cm. fat thickness or as specified
9	Other



### 3.13 Packing (data field 13)

0	Not specified
1	Carcases and quarters – Chilled with or without packaging
2	Carcases and quarters – Frozen/deep Frozen packed to protect the products
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).
9	Cuts – Other.

### 3.14 Origin (we need definitions for this section) (data field 14)

### 3.15 Provisions concerning meat colour. (data field 15)

The measurement of colour of porcine meat shall be carried out using the Pork Quality Colour Guide (Agriculture Canada Publication 5180/B) annexed to this Standard or a similar colour range on an accepted scale. Colour ranges 2, 3, or 4 as referenced in the colour guide are acceptable. The longissimus and gluteus medius, as identified in the cut descriptions, are the major muscles that shall be used for colour evaluation. No specific lighting requirement (daylight equivalent) has been included in this standard. Daylight is only a strict necessity in determining meat colour in cases of serious doubt

00	Not specified
01-05	Specified
09	Other

## 4 Porcine specific coding

The following tables demonstrate the general application of the 14 field, 20 digit UN/ECE using the EAN.UCC coding scheme as it applies to porcine species specifications. See ANNEX for details.

### Data Fields & usage

UN Data Structure	Data Field	Range	Specified use	Existing Porcine	UN Code
Species	1	0-9	3		
Cut	2	0000-9999			
Category	3	0 - 9	0 - 9		
Refrigeration	4	0-9	1 – 5, 9		
Conformity Assessment	5	0 - 9	0 – 7, 9		
Production	6	0 - 9	0 - 1		
Feeding	7	00 - 99			
Slaughter system	8	0-9	0 - 1		
Post Slaughter Process	9	0 - 9	0 - 1		
Grading	10	0 - 9			
Wt. Range	11	0 - 9	0 – 5, 9		
External Fat	12	0-9	0-8		
Packing	13	0-9	0 – 6, 9		
Origin	14	0 - 9	?		
Colour	15	00 - 99	00 – 05, 09		

## 5.1 Cut Coding Structure

### Porcine Coding

The 4 digit cut code

This is developed as follows:

1 <sup>st</sup> digit	2 <sup>nd</sup> and 3 <sup>rd</sup> digits	4 <sup>th</sup> digit	
Bone & rind Options	Basic Cut	Description	Style or cut variations

#### 1<sup>st</sup> Digit

Bone options: *Bone In, Boneless, Partially Boneless*  
Rind/Skin options: *Skin On, Skin Off, Partially Skinned*

Code No:	
0	Not specified
1	Bone In – Skin On
2	Bone In – Skin Off
3	Bone In – Partially Skinned
4	Boneless – Skin On
5	Boneless – Skin Off
6	Boneless – Partially Skinned
7	Partially Boneless – Skin On
8	Partially Boneless – Skin Off
9	Partially Boneless – Partially Skinned

#### 2<sup>nd</sup> and 3<sup>rd</sup> Digits

##### 10 - Carcase

11 – 29 Shoulder cuts  
30 – 49 Loin cuts  
50 – 59 Belly cuts  
60 – 79 Leg cuts  
80 – 99 Other parts \*

Actual cut codes have to be agreed
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#### 4<sup>th</sup> Digit

This 4<sup>th</sup> digit in the cut code allows modifications on the basic cut to be specified within the coding structure. In the cut descriptions, where appropriate, several styles or options are described and are coded from, in a typical case such as pork loin, 1 to 6.

These options or style numbers provide the 4<sup>th</sup> code digit.

Therefore the code for a boneless, skinless, 8 rib pork loin excluding the chump/rump would be assembled as follows:

Boneless and skinless: 5 is digit 1  
Pork loin: 04 is digits 2 & 3  
8 rib excluding chump/rump: style/option 3 is digit 4

Therefore the 4 digit code is:

5043
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The same operation produces a 4 digit cut code for other cuts.

### **Comments on porcine Standard Coding (08/05/02)**

#### **Use of 4 digit product codes 0000 – 9999**

First digit - Use 1 - 9 bone and rind status (with 0 signifying a non carcass cut)

Second & Third digits – 01 – 99

Fourth digit – Use 1 – 9 Style variation

#### **First Digit**

0 defines non carcass – therefore

0001 – 0199 Muscles  
0200 – 0399 Lymphatic system  
0400 – 0499 Skeleton  
0500 – 0999 Unallocated

#### **Second & third digits**

10 - Carcass  
11 – 29 Shoulder cuts  
30 – 49 Loin cuts  
50 – 59 Belly cuts  
60 – 79 Leg cuts  
80 – 99 Other parts \*

\* Head, Jowl, Rind, Fat, Feet, Liver, Heart, Spleen, Intestines etc