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Item 6 of the provisional agenda

Draft Revision of the UNECE Standard for Porcine Meat

Note by the secretariat: The following draft revision of the porcine standard has been received from the United Kingdom. It should serve as a discussion paper to initiate the revision process.

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1. INTRODUCTION

1.1 UNECE Standards for Meat

1.1.1 The purpose of this Standard is to facilitate trade by recommending an international language for bovine carcases and cuts marketed as fit for human consumption. This language describes bovine meat items commonly traded internationally and defines a coding system for communication and electronic trade. This document 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:

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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 meat 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).

Meat species/ class category	Use Code in the UNECE code for meat (see chapter	Publication/adoption details
	4)	
Beef – Bovine	1	Adopted 2000.
		This second edition editorially revised and corrected published 2003
Veal	2	To be developed
Pork meat – Porcine	3	Adopted 1998.(under revision 2003)
Sheep meat – Ovine	4	Adopted 2002.
Goat meat – Caprine	5	To be developed
Other Mammalian meats and processed meat products	6	To be developed
Chicken meat	7	Under development, planned for 2004
Turkey meat	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
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1.3 Scope and application

- 1.3.1 This standard provides a variety of options to purchasers for meat handling, packing and packaging and conformity assessment, which conform to good commercial practice for meat and meat products, intended to be sold in international trade. 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.
- 1.3.2 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 carcases and selected commercial cuts to facilitate a better understanding of the provisions with a view to ensuring a wide application in international trade.
- 1.3.3 It is recognized that additional requirements of food standardization and veterinary control must be complied with to market porcine product 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.

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 Carcases/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.
- 2.2.8 Free from freezerburn.³
- 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 subsections define the mandatory purchaser specified requirements together with their use codes to be used in the UNECE code for bovine carcases and cuts:

3.1 Species/Class (data field ...)

Use codes as defined in 1.1.2.

3.2 Cut (data field ...)

The use codes from 0 to 9999 are defined in Chapter 6.

3.3 Refrigeration (data field ...)

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:

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.

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).

	Category	Description
1	Chilled	Product maintained at not less than -1.5°C or
		more than $+7^{\circ}$ 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.

3.4 Production History

3.4.1 Traceability

The 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. 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 paragraph?

3.4.2 Porcine Category

The standard provides for categorization 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
7	Other

3.4.3 Production and Feeding

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

	T
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	Extensive/Outdoor Systems 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	Husbandry systems that control specific animal treatments such as Growth Promotants (GP) which follow internationally recognised standards or national standards if they are more restrictive
5	Other systems must be described by the seller.

3.4.4 Slaughter Systems

0	Not specified
1	Specified

3.4.5 Post slaughter processing

0	Not specified
1	Specified

3.5 Grade / Certification

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

3.6 Provisions concerning external fat

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

3.7 Marbling/ Country or regional grading

0	Not specified
1	Specified

3.8 Provisions concerning meat colour

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

0	Not specified
1-5	Specified
6	Other

3.9 Weight range of meat cuts

(Within the scope of this Standard and coding system provision exists to specify the weight of the dressed head on carcase from which the cut is derived and in addition a cut weight range as specified within the individual cut specification.)

Weight Range	The 1 st digit specifies carcase weight and, if required, the 2 nd
	specifies the weight range of cut.
00	Not specified
10	50 kg. & < 60 kg. Carcase Weight
20	60 kg. & < 70 kg. Carcase Weight
30	70 kg. & < 80 kg. Carcase Weight
40	80 kg. & < 90 kg. Carcase Weight
50	90 kg. & < 100 kg. Carcase Weight
60	Other

Carcase weights are specified, if required, by the 1st digit in this field and cut weight ranges by the 2nd digit in the field.

For example:

Requirement is for an 8 rib boneless/skinless pork loin excluding the chump/rump.

Then carcase weight not specified: the 1st digit is 0 Weight range option for a style 3 loin 1-3kg is 1

Therefore the weight data field would be 01

3.10 Packing

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).
7	Cuts – 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

	Data		Specified	Existing UN	
UN Data Structure	Field	Range	use	Porcine	Code
Species	1	0-9	3	Species	3
Sex/Type	2	0-9	0-7	not specified	
Feeding/production	3	0-9	0-5	not specified	
Grading	4	0-9	0-1	not specified	
Slaughter system	5	0-9	0-1	not specified	
Post Slaughter processing	6	0-9	0-1		
				Bone/Skin Status	0-9
		0000-			
Cut	7	9999		Cut	01-16
				Style	0-9
External Fat	8	0-9	0-8	External Fat	0-9
Marbling	9	0-9	0-1	not specified	
Colour	10	0-9	0-6	Colour	0-9
Refrigeration	11	0-9	0-3	Refrigeration	1-3
Wt. Range	12	00-99	00-85	Weight	00-79
Packing	13	0-9		not specified	
Options	14	000		Options	1 or 2

5 Cut Coding Structure

Porcine Coding The 4 digit cut code

This is developed as follows:

1 st digit	2^{n}	and 3 rd digits		4 th digit
Bone & rind Options	Basic Cut	Description	Style or cut variations	

1st 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

2nd and 3rd 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

4th Digit

This 4th 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 4th 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

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 carcase cut)

Second & Third digits -01 - 99

Forth digit - Use 1-9 Style variation

First Digit

0 defines non carcase – therefore

0001 – 0199 Muscles

0200 – 0399 Lymphatic system

0400 – 0499 Skeleton

0500 - 0999 Unallocated

Second & third digits

10 – 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