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Meat grades and meat cuts — Specification — Part 1: Beef grades and cuts

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

Meat grades and meat cuts — Specification — Part 1: Beef grades and cuts

1 Scope

This part of this Draft East African Standard specifies methods of grading and grades of beef including veal, quality and safety requirements, methods of sampling and test, of carcasses thereof, meant for human consumption. The standard also defines major portions of meat cuts from the carcasses for sale.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CAC/RCP 58, *Code of hygienic practice for meat*

EAS 38, *Labelling of pre-packaged foods — General requirements*

EAS 101,

ISO 4833-1, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 1: Colony count at 30 °C by the pour plate technique*

ISO 4833-2, *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms — Part 2: Colony count at 30 °C by the surface plating technique*

ISO 16649-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli — Part 2: Colony-count technique at 44 °C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide*

ISO 6888-1, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium*

ISO 7937, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of Clostridium perfringens — Colony-count technique*

ISO 6579-1, *Microbiology of the food chain — Horizontal method for the detection, enumeration and serotyping of Salmonella — Part 1: Detection of Salmonella spp.*

ISO 11290-1, *Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. — Part 1: Detection method*

ISO 11290-1, *Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. —Part 1: Detection method*

ISO 6633, *Fruits, vegetables and derived products — Determination of lead content — Flameless atomic absorption spectrometric method*

ISO 5961, *Water quality — Determination of cadmium by atomic absorption spectrometry*

ISO 6637, *Fruits, vegetables and derived products — Determination of mercury content — Flameless atomic absorption method*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply.

- 3.1 carcass**
body of any slaughtered animal after bleeding and dressing
- 3.2 Cold dressed weight (CDW)**
weight of the chilled carcass
- 3.3 dressing**
removal of head, hide or skin, viscera, genital or gums, urinary bladder and feet up to the carpal and tarsal joints and udder of lactating animals and where necessary halving the carcass lengthwise
- 3.4 veal**
meat from young calf of not more than four months old
- 3.5 halving**
dividing the carcass lengthwise into two sides through the midline

4 Grading specifications

4.1 Grading

Grading of beef shall be done in accordance with the requirements specified in Table 1 and Table 2.

Table 1 — Requirements for grading beef carcasses

Grade	Animal	Age	Dentition	CDW weight	Fat cover
Prime	Steers, bulls and heifers	Max. 30 months	Max. 6 incisors	Min. 150 kg	15 mm
		Max. 18 months	Max. 2 incisors	Min. 100 kg	15 mm
Choice	Steers, heifers, bulls	Max. 42 months	No Limit	Min. 150 kg	20 mm
		Max. 18 months	2 incisors	Max. No limit	20 mm
Standard	All eligible slaughter stock	No limit	No limit	Min. 100 kg Max. No limit	No limit
Commercial	All eligible slaughter stock	No limit	No limit	No limit	No limit

Table 2 — Requirements for grading veal

Grade	CDW Limits	Description
Veal 'A' Grade	32 kg to 61 kg	'A' Grade veal shall be derived from prime fully fed calves. The carcasses shall be pale pink, well finished and free from bruising and taint.
Veal 'B' Grade	61 kg to 68 kg	'B' Grade veal shall be derived from calves whose carcasses shall be of light finish but of fair average flesh and conformation, free from bruising and taint, and may include carcasses overweight for 'A' Grade to a maximum of 68 kg

4.2 Grade descriptions

4.2.1 Prime grade

Prime grade beef shall be derived from carcasses with very good conformation and shall be well finished. The fat covering shall be a white-creamy colour and of firm consistency. The rib eye muscle shall be well rounded with a bright cherry red colour and a moderate amount of marbling. The lean muscular meat shall have a fine texture.

Final grading of carcasses meeting the prime grade specification shall not be done until after they have been chilled overnight and quartered between the 10th and 11th rib for inspection of the rib eye muscle.

The carcass shall be free of blemishes other than statutory excisions. Carcasses retained for measles are excluded from this grade.

4.2.2 Choice grade beef

Shall be derived from well-proportioned and well fleshed carcasses with evenly distributed fat. The hindquarters shall be free from blemishes but superficial blemishes shall be allowed in the forequarters. Carcasses retained for measles are excluded from this grade.

4.2.3 Standard grade beef

Shall be derived from carcasses with some covering of fat. Carcasses having extensive and penetrating blemishes affecting the prime cuts shall not be included in this grade.

4.2.4 Commercial grade beef

Shall be derived from plain carcasses of steers, heifers, cows or bulls. This grade shall include beef from higher grades which are severely blemished.

5 Beef prime cuts

The beef prime cuts shall be as follows:

5.1 Leg

Cut extending from stifle joint to the hock joint.

5.2 Silver side

Shall be a cut taken from the outer side of the buttock (round) with all leg muscle below the stifle joint removed.

5.3 Topside

Shall be a cut taken from the inner side of the buttock (round).

5.4 Thick flank steak

Shall be a cut taken from around the femur or round bone to the fore of the buttock.

5.5 Rump steak

Shall be a cut taken from between the rump knuckle bone of the buttock and the point of the hip bone.

5.6 Sirloin

Shall be a cut extending from the rump to and including the eleventh rib with a thin flank removed, and may be sold on the bone or boned and rolled with or without the eye fillet.

5.7 Rolled loin

Striploin rolled with fillet.

5.8 Fore rib

A cut of beef in front of Sirloin comprising of the five bones loin located between the shoulders and the mid back

5.9 Middle rib

Consists of 5 ribs to 10 ribs depending upon the ribs left on the hindquarters.

5.10 Thick rib / Top rib

a cut found on the shoulder in the fore quarter of the carcass.

5.11 Brisket

A cut taken from that portion of the carcass which extends along the outer edge of the forequarter from the neck up to, and not including, the eleventh rib. It may be sold on the bone, or boned and rolled.

5.12 Shin

The cut from the knee to the arm bone joint.

5.13 Chuck ribs

Shall be a cut comprising the last end of chuck and including the first three ribs.

5.14 Neck

Neck meat is that portion which comprises the neck bones.

6 General requirements

6.1 Animals from which beef is derived shall be slaughtered in a hygienically managed slaughter house in accordance with CAC/RCP 58. The slaughter shall be supervised by a competent authority. The bovine

animals and carcasses thereof shall be subjected to ante-and post-mortem veterinary inspection, respectively as prescribed in the Meat Control Acts of respective Partner States, and beef carcasses thereof shall be certified as being sound and free from contagious and infectious diseases and fit for human consumption. The certified carcasses shall bear an approval mark of such inspection, the symbol or number or name of the establishment where they were prepared, and the legend 'PASSED' denoting wholesomeness and denoting the grade or quality. The marking fluid used shall be of food grade.

6.2 The beef shall be prepared in a plant which is regularly operated under supervision of the relevant competent authority.

6.3 The beef shall be prepared, handled fresh or chilled or frozen, and then delivered fresh or chilled or frozen, under hygienic conditions.

6.4 Preparation of beef carcasses and beef cuts

Beef carcasses and cuts shall have been neatly butchered, trimmed, weighed, properly labelled and shall be free from bruises or blemishes of any kind. They shall be delivered in good condition and shall show no evidence of deterioration at the time of delivery.

6.5 Detailed requirements

The following requirements shall apply to the specified types of beef carcasses or cuts:

6.5.1 Type A: Fresh carcass

The deepest part of the carcass near the bone shall be cooled to the ambient temperature when delivered and shall show no evidence of deterioration.

6.5.2 Type B: Fresh-chilled carcass

The carcass shall be chilled so that the temperature at the deepest portion of the flesh near the bones shall be between 1 °C and 4 °C and shall show no evidence of deterioration.

6.5.3 Type C: Fresh-frozen carcass

The carcasses shall be frozen solid -18 °C when delivered and they shall show no evidence of deterioration.

6.5.4 Type D: Beef cuts; fresh

Shall be prepared from fresh carcasses of Type A and cooled to the ambient temperature. The cuts shall be well trimmed and clean with surplus fat removed.

6.5.5 Type E: Beef cuts, fresh, Chilled

These shall be obtained from carcasses of Type A and chilled as under 6.5.2 or from carcasses of Type B.

6.5.6 Type F: Beef cuts; fresh, frozen

These shall be obtained from the carcasses of Type A or Type B and frozen solid (see 6.5). The cuts shall show no evidence of refreezing or deterioration.

6.6 Hygienic requirements

Beef Carcasses and Beef Cuts shall comply with the microbiological requirements given in Table 3.

Table 3 — Microbiological limits for beef, carcasses and beef cuts

S. No	Micro-organism	Max. limits	Test method
i	Aerobic colony count, cfu/g	10 ⁶	ISO 4833
ii	<i>E. coli</i> per g	Absent	ISO 16649-2
iii	<i>Coagulase positive Staphylococcus aureus</i> , per g	10 ³	ISO 6888-1
iv	<i>Clostridium perfringenes</i> (For vacuum packed products), 25 g	Absent in	ISO 7937
v	<i>Salmonella ssp.</i> 25 g	Absent	ISO 6579
vi	<i>Listeria monocytogenes</i> , 25 g	Absent	ISO 11290-1

7 Contaminants

Limits for heavy metal contaminants

Beef carcasses and beef cuts shall not contain heavy metal contaminants in excess of the limits given in Table 4 when tested by methods mentioned therein.

Table 4 — Heavy metal contaminants limits for beef carcasses and beef cuts

S/No.	Contaminants limits	Maximum limits ppm	Test method
i	Arsenic (Ar)	0.1	EAS 101
ii	Lead (Pb)	0.1	ISO 6633
iii	Cadmium	0.05	ISO 5961
iv	Mercury	0.03	ISO 6637

8 Veterinary drugs residues

The products covered by this standard shall comply with the maximum residue limits specified in *CAC/MRL 2- Maximum Residue Limits for Veterinary Drugs in Food*.

9 Ageing

9.1 Dry aged, primal and bone in fabricated cuts shall be aged at 1 °C to 4 °C for up to 4 weeks.

9.2 Wet aged carcass side, primal and fabricated cuts shall be aged at 1 °C to 4 °C in vacuum sealed bags for a period of up to 4 weeks.

10 Chilling

Fresh beef carcasses sides shall be brought to a temperature of between 4 °C and 7 °C within 24 h. Carcass and cuts meant for chilling shall be further chilled to temperatures of 1 °C to 4 °C and should be consumed within a period of 4 weeks.

11 Freezing and storage

11.1 The beef carcasses sides or cuts shall be pre-chilled before freezing and the freezing shall be completed at minus (-)18 °C at the highest, within three days.

11.2 Frozen beef carcasses sides or cuts shall be stored at minus (-)18 °C at the highest. The frozen carcass shall be consumed within 12 months under normal conditions of storage.

12 Meat marking ink

12.1 The marking ink used for inspection marks or grade marks shall be of food grade material.

12.2 Grade designation marks on the carcass, side or cuts shall be applied with a roller stamp which leaves its mark on the full length of the carcass. In case of stamping there should be three stamps on each side of the carcass: hind leg, mid rib section and fore leg.

13 Packaging and labelling

13.1 Packaging

13.1.1 The fresh and chilled meat shall be packaged in food grade materials. The products if wrapped may be packaged in waxed cartons or other approved containers.

13.1.2 The frozen meat shall be wrapped in food grade material.

13.1.3 Different cuts of beef such as steaks, patties shall be layer packaged in internally waxed cartons.

13.1.4 Vacuum-packaged cuts shall be delivered with vacuum containers intact.

13.2 Labelling

In addition to the requirements of EAS 38, the following labelling requirements shall apply and shall be legibly and indelibly labelled;

- a) Type and grade of beef;
- b) Name of the manufacturer and physical address;
- c) Country of origin;
- d) Batch or code number;
- e) Net weight and gross weight;
- f) Date of production / packaging;
- g) Storage condition; and
- h) Date of expiry.

14 Transportation

14.1 The fresh and chilled meat shall be handled and transported under hygienic conditions meeting the microbiological limits specified under Table 3 of this Draft standard.

14.2 Chilled meat shall be handled and transported at temperature between 1 °C and 4 °C.

14.3 Frozen meat shall be transported under -18 °C and the packages shall be handled with care to preserve quality and safety of the product.

