

Grading live animal for meat trade - Specification

Part 1: Cattle

PUBLIC REVIEW DRAFT, NOVEMBER 2017

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TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

Ministry of Agriculture, Livestock and Fisheries- Directorate of livestock production
Ministry of Agriculture, Livestock and Fisheries - Directorate of veterinary services
Kenya Camel Association (KCA)
University of Nairobi (UON)
Kenya Industrial Research and Development Institute (KIRDI)
Kenya Agricultural and Livestock Research Organization (KARLO)
International Livestock Research Institute (ILRI)
Kenya Livestock Marketing Council (KLMC)...Proposed
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National Public Health Laboratories
Government Chemist's Department
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Kenya Meat Commission
Kenya Nut limited – Morendat Farm
Choice Meats limited
Kenya Bureau of Standards (KEBS)

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KENYA STANDARD

**Grading live animal for meat trade -
Specification**

Part 1: Cattle

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Foreword

This Kenya Standard was prepared by the Meat and Meat Products Technical Committee under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

During the preparation of this standard, reference was made to the following documents:

Determination of living animals for slaughter: KS 01-837: part 1

Kenya Meat Commission Act Cap 363 of the laws of Kenya

Il N'gvesi Guide to Body Condition Scoring, Purdue Extension, www.extension.purdue.edu/new

ILRI discussion paper No. 22, Improvement and Diversification of Somali Livestock Trade and Marketing; Towards a formalized grading system for export quality livestock in Somalia

Stuth, J. et al., (2006). "Livestock Market Information System for East Africa: The Case of LINKS/GL-CRSP." In J.G McPeak and P.D Little , eds Pastoral livestock marketing in Eastern Africa: Research and policy challenge

ES 2789:2012-Grading live animals and carcass

Australian Standard for the export of livestock (version 2.3) 2011

PNS/BAFPS 87:2010: Live grading for slaughter cattle

Animal welfare Act Cap 360

The assistance derived from the above sources is highly acknowledged.

Grading live animals for meat trade –Specification

Part 1: Cattle

1. Scope

This Kenya Standard specifies requirements for grading of cattle for meat trade

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.

- I. *KS 01-837: Parts 1 and 2 1990 Definitions for living animals for slaughter*
- II. *KS 317-1: Carcasses and meat cuts- bovine specification*
- III. *Code of practice for animal welfare during transportation.*

3. Definitions

For the purposes of this standard, the following definitions shall apply:

3.1 Grade –

the defined parameters that segregate live animals for meat trade into homogenous groups applied by market participants based on weight, age, sex, body condition and body conformation.

3.2 Sex –

refers to whether an animal is male or female.

3.3 Body condition –

overall body state of an animal assessed through visual observation taking into account fat and muscle deposition as it occurs in various places on the animal's body

3.4 Body condition score-

Is the score assigned through visual appraisal of specific body parts. The extent to which specific skeletal body parts {including; hips, hooks and pins, rump, shoulders, back (spinous processes of the thoracic vertebrae), ribs} are either hidden or smoothed by flesh or fat. The animals are thus categorized as excellent; good; fair and poor;

3.5 Body conformation

is the symmetry, size and shape of the various body regions of an animal relative to each other or the general appearance of the animal according to what is considered a desirable appearance. Features of an animal that comprise the 'desirable appearance' include

- a) Big frame or skeletal size of the animal—under this feature height and length as crucial elements to consider. Top quality animals are those that shall be tall with large body frame;
- b) Good muscling— under this feature, thick and long muscling is preferred;
- c) Good appearance of feet and legs—important features to consider here shall include a long and straight (level) rump; long and broad loin; long and straight back; and well set and straight legs. Cattle exhibiting a large heart girth in relation to overall body size (height and length of body) will attain a higher score.

3.6 Conformation score

This is a qualitative categorization of animal features based on body frame, animal height and defects. They shall be described as excellent, good or fair.

3.7 Castrated male:

Male animals whose testicles have been rendered dysfunctional through an approved procedure.

3.8 Live weight:

the weight of an animal before slaughter determined through an appropriate and acceptable method.

3.9 Lordosis

-_Excessive inward curvature of the spine.

3.10 Kyphosis

-_Excessive outward curvature of the spine.

3.11 Ossification (or osteogenesis)

-is the process of laying down new bone material by cells called osteoblasts. It is synonymous with bone tissue formation

4. GRADING SPECIFICATIONS

4.1 Grading—

Grading of cattle shall be done in accordance to age, sex, and ossification, as outlined in table 2 weight, body condition and body conformation.

4.1.1 Age: categories will be based on records or dentition as outlined in KS 01-837: Parts 1 1990.

4.1.2 Sex: categories will be based on: male (castrated or un-castrated) and female.

4.1.3 Weight: Animal live weight will be determined by any appropriate method including weighing scale or weighing band. The following weight levels shall be used during grading of cattle;

Males: Weight category 1, minimum live weight of 300 Kg

Males Weight category 2 minimum live weight 200 Kg

Females: Weight category 1 minimum live weight 200 Kg

All sex categories: With no weight limit

4.1.4 Body condition: Body condition shall be scored as; excellent, good, fair or poor.

Table 1 : Body conditions score

Body condition	Description
Excellent	Smooth and well covered, Dorsal spine only felt with pressure Transverse process cannot be seen Heavy fat deposit on tail head, ribs, hooks and pins fully covered
Good	Ranges from animal with ribs that are visible, little fat cover, dorsalspines barely visible to animals that are smooth and well covered, dorsal spine cannot be seen but easily felt,
Fair	Ranges from animals with dorsal spines pointed to the touch, hips, pins, tail-head and ribs are prominent to animals with transverse process visible and muscle mass between hooks and pins slightly concave
Poor	Marked emaciation with traverse processes projecting prominently and neural spines appear prominently

4.1.5 Body conformation:

Conformation score (CS): shall encompass the symmetry, size and shape of the various body regions of an animal relative to each other or the general appearance of the animal. Three levels of conformation encompassing all the identified features shall thus include:

- a) Excellent: animal of good height (tall),with large frame and long and straight rump, loin and back, large heart girth and straight legs;
- b) Good: animals of medium height (not as tall as the one with excellent conformation),with medium frame, shorter but straight rump, loin and back, medium heart girth and straight legs;
- c) Fair: animals showing defects such as being very short and small frame, a small heart girth in relation to the overall body size; features on the skeletal size such as lordosis or kyphosis, or feet and legs such as being post-legged, buck-kneed, splay-footed, sickle-hocked among others.

4.2 Cattle grades

The interaction of the grading characteristics (weight, sex, age, body condition, and conformation) shall be categorized into four grades:

Table 2: Grades and grading parameters for cattle

Grade	Sex category	Weight (Kg)	Age	Body condition	Body conformation
1	Castrated male	Minimum 300	1-3years (One to three pairs of incisors, not worn out)	Excellent	Excellent
	Un-castrated male	Minimum 300	1-3 years (One to two pairs of incisors, not worn out)	Excellent	Excellent
	Female	Minimum 200	1-3years (Two to three pairs of incisors, not worn out)	Excellent	Excellent
2	Castrated male	Minimum 200	1-4 (One to four pairs of incisors, not worn out)	Good	Good
	Un-castrated male	Minimum 200	1-4years(One to four pairs of incisors, not worn out)	Good	Good
	Female	No limit	Four pairs of incisors, not worn out, 4-5 years	Good	Good
3	All sex categories	No limit	Minimum 2 years (minimum 2 pairs of incisors)	Fair	Fair
4	All sex categories	No limit	No limit	Poor	Fair

Table 3: Sample Pictorial presentation of grades

Grade	Sex category	Pictorial presentation
1	Castrated male	
	Un-castrated male	
	Female	
2	Castrated male	
	Un-castrated male	
	Female	
3	All sex categories	

4	All sex categories	
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