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Cheese — Specification

Part 9: Goat cheese

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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 50-9 was prepared by Technical Committee RSB/TC 004 *on Milk and milk products*.

In the preparation of this standard, reference was made to the following standards:

- 1) DKS 2679:2016: Goat cheese — Specification
- 2) DKS 2191: 2015: Pasteurized goat milk — Specification.

The assistance derived from the above source is hereby acknowledged with thanks.

RS 50 consists of the following parts, under the general title Cheese — Specification:

- *Part 1: General requirements*
- *Part 2: Gouda cheese*
- *Part 3: Cream cheese*
- *Part 4: Processed cheese*
- *Part 5: Cheddar cheese*
- *Part 6: Cottage cheese*
- *Part 7: Mozzarella cheese*
- *Part 8: Paneer cheese*
- *Part 9: Goat cheese*

Committee membership

The following organizations were represented on the Technical Committee on Milk and milk products (RSB/TC 004) in the preparation of this standard.

Blessed Dairy Ltd

CATAM Ltd

Gasabo District

Inyange Industries Ltd

Ishyo Food Ltd

La Fromagerie Ltd

Mukamira Dairy Ltd

National Industrial Research and Development Agency (NIRDA)

Nyabihu TVET School

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Soma Gacye Ltd

World Food Programme Rwanda (WFP)

Rwanda Standards Board (RSB) – Secretariat

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Cheese — Specification—Part 9: Goat cheese

1 Scope

This Draft Rwanda Standard specifies requirements, sampling and test methods for goat cheese intended for human consumption or for further processing.

This Standard applies to goat cheese made from pasteurized goat's milk.

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.

AOAC 926.08, *Rapid Determination of Moisture/Solids and Fat in Dairy Products by Microwave and Nuclear Magnetic Resonance Analysis*

AOAC 942.17, *Arsenic in food. Molybdenum blue method*

AOAC 999.10, *Determination of Lead, Cadmium, Copper, Iron, and Zinc in foods, Atomic Absorption Spectrophotometry after dry ashing*

ISO 1735, *Cheese and processed cheese products — Determination of fat content — Gravimetric method (Reference method)*

ISO 5534, *Cheese and processed cheese — Determination of the total solids content (Reference method)*

ISO 5546, *Caseins and caseinates — Determination of pH (Reference method)*

ISO 5943, *Cheese and processed cheese products — Determination of chloride content — Potentiometric titration method*

ISO 6733, *Milk and milk products — Determination of lead content — Graphite furnace atomic absorption spectrometric method*

ISO 8197, *Milk and milk products — Sampling inspection by variables*

RS CAC/RCP 1, *Code of practice — General Principles for food hygiene*

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

RS ISO 11290-2, *Microbiology of the food chain — Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp. — Part 2: Enumeration method*

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

RS ISO 4832, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique*

RS ISO 5538, *Milk and milk products — Sampling inspection by attributes*

RS ISO 5738, *Milk and milk products — Determination of copper content — Photometric method (Reference method)*

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

RS ISO 6611, *Milk and milk products — Enumeration of colony-forming units of yeasts and/or moulds — Colony-count technique at 25 degrees C*

RS ISO 6732, *Milk and milk products — Determination of iron content — Spectrometric method (Reference method)*

RS ISO 707, *Milk and milk products — Guidance on sampling*

3 Terms and definitions

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

3.1

goat milk

whitish, normal, clean and fresh secretions obtained by practically emptying the udder of a healthy goat, properly fed and kept, but excluding that got during the first seven days after kidding and free from colostrum

3.2

pasteurization

heat treatment process applied to a product with the objective of eliminating possible health hazards arising from pathogenic micro-organisms associated with milk by heat treatment which is consistent with minimal chemical, physical and organoleptic changes in the product

3.3

pasteurised goat milk

milk that has been subjected to pasteurization process as defined in 3.2 and chilled to 7 °C immediately, if retailed as such, this milk should be chilled to 7 °C and packaged without delay under conditions which eliminate contamination

3.4

goat cheese

product obtained from goat milk, with or without added milk solids, by precipitation with permitted acidulants and heating.

3.4.1

soft, unripened goat cheese

have a tang (some much more so than others) and usually a moist, fresh curd texture, white in colour with mild tangy flavor. They are produced using lactic bacteria and no or very little addition of rennet. They are higher in moisture and have no rind.

3.4.2

soft, ripened goat cheese

have a velvety-looking white surface mold (from *Penicillium album*) like cow's milk Camembert or Brie. The center is creamy while the exterior is white mold. Others don't get as soft and may look crumbly but will taste very smooth. As the cheese ages, the white mold turns darker and brownish which can be trimmed off, if desired. Soft-ripened goat cheeses have a more complex flavor and aroma than unripened cheeses and with no soured smell

3.4.3

semi-soft, ripened goat cheese

has white to off white body, smooth texture, with a typical sweet, clean goat and nutty flavor, free from strong, stale, rancid or foreign odours

3.4.4

firm, unripened goat cheese

are with a typical sweet, slightly tangy flavor and a firm, buttery consistency

3.4.5

hard, unripened or ripened goat cheeses

firm textured and the curds are pressed. Aging matures and dries them.

3.5

food grade packaging material

packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product

4 Description

Goat cheese is reserved to cheeses of diverse shape and weight, prepared with goat milk exclusively. Goat cheeses are categorized as unripened (fresh) cheese or ripened cheese. The texture of each is defined as soft, semisoft, firm, or hard. Fresh goat cheeses are white and creamy in colour with a typical goat cheese, mild and tangy flavour.

5 Requirements

5.1 Raw materials

Milk obtained from goat milks complying with relevant Rwanda standards

5.2 Permitted ingredients

Permitted ingredients shall comply with relevant standards, be food grade and include the following:

- a) acidulants complying with relevant standards;
- b) spices (for flavoured goat only);
- c) Salt complying with RS EAS 35

5.3 General requirements

Goat cheese shall be:

- a) free from dirty, surface discoloration, insects and rodent contamination and from adulterants;
- b) white bloom rind, mould grown (*Penicillium album*, covering the whole surface, short growth, well-spaced, no other mould;
- c) fresh, typical of goat cheese; and
- d) smooth, melting, homogeneous, firm, free of holes.

5.4 Specific requirements

Goat cheese shall comply with specific requirements given in table 1 when tested in accordance with test methods specified therein.

Table 1 —Specific requirements for goat cheese

S/N	Characteristic	Requirement	Test method
i.	Milk constituent minimum content:	45%	ISO 1735
ii.	Milkfat in dry matter minimum		

	content:			
iii.	Dry matter (Total Solids):	Depending on the fat in dry matter content according to the table below		ISO 5534
		Fat in dry matter *content (m/m) :	Corresponding minimum dry matter content (m/m)	
		Equal to or above 45% but less than 55%:	43%	
		Equal to or above 55% but less than 60%:	48%	
		Equal to or above 60%:	51%	
iv.	Moisture (vacuum Oven), Max	65%		ISO 5534
v.	Salt % Max	<1%		ISO 5943
vi.	pH value	4.2-4.4		ISO 5546

6 Food additives

Food additives may be added in goat cheese in accordance with RS CODEX STAN 192.

7 Contaminants

7.1 Total Antibiotic residues

Goat cheese shall not have more than 10.0 ppb total antibiotic residues as (beta lactam) content when tested according to AOAC 982.14, 15, 16, 17 and 18, and AOAC 962.14, Beta-lactam Antibiotics in milk

7.2 Veterinary drugs and pesticide residues

Goat cheese shall comply with those maximum limits for pesticides and veterinary residue as provided by Codex Alimentarius for the ingredients used in cheese manufacturing.

7.3 Aflatoxin

When tested in accordance with RS ISO 14501, the level of Aflatoxin M1, shall not exceed 0.50 µg/kg.

7.4 Heavy metals

Heavy metals shall not exceed limits given in table 2 when tested in accordance with test methods specified therein.

Table 2 — Maximum limits of heavy metals

S/N	Heavy metal	Maximum limit mg/kg	Test method
i.	Arsenic (As)	0.1	AOAC 942.17
ii.	Lead (Pb)	0.02	ISO 6733
iii.	Mercury (Hg)	1.0	AOAC 999.10
iv.	Copper (Cu)	5.0	RS ISO 5738
v.	Zinc (Zn)	50	AOAC 999.10
vi.	Tin (Sn)	250	AOAC 999.10
vii.	Cadmium (Cd)	1.5	AOAC 999.10
viii.	Iron (Fe),	0.5	RS ISO 6732

8 Hygiene

8.1 Goat cheese shall be processed, packaged, stored and distributed under hygienic conditions complying with RS CAC/RCP 1 and RS CAC/RCP 57.

8.2 Goat cheese shall not exceed microbiological limits in Table 3 when tested in accordance with test methods specified therein.

Table 2 – Microbiological limits in goat cheese

S/N	Microorganism	Maximum limit	Test method
i.	<i>Salmonella spp</i> per 25g	Absent	RS ISO 6579-1
ii.	<i>E. Coli</i> , cfu/g	Absent	RS ISO 16649-2
iii.	<i>Coliforms</i> cfu/g	10	RS ISO 4832
iv.	<i>Listeria monocytogenes</i> /25g	Absent	RS ISO 11290-2

9 Packaging

Goat cheese shall be packaged in food grade packaging materials made of suitable material and shall be well sealed in order to prevent contamination of the contents during storage and transportation.

10 Labelling

In addition to the requirements of RS EAS 38, the following specific labelling requirements shall be legibly and indelibly marked:

- a) name of product as “Goat cheese”;

- a) type of the goat cheese;
- b) name and address of manufacturer;
- c) date of manufacture;
- d) date of expiry;
- e) list of ingredients;
- f) coagulating enzyme used;
- g) batch number;
- h) storage conditions; and
- i) country of origin.

11 Sampling

The Test samples shall be taken in accordance with RS ISO 707. In addition to the provision in RS ISO 707, sampling shall comply with ISO 8197 or RS ISO 5538 when the sampling is purposely for inspection.

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