RWANDA STANDARD

DRS 50-9

2nd edition

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Cheese — Specification

Part 9: Goat cheese

ICS 67.100.30

Reference number

In order to match with technological development and to keep continuous progress in industries, standards are subject to periodic review. Users shall ascertain that they are in possession of the latest edition

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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.

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

This second edition cancels and replaces the first edition (RS 50-9: 2022) which has been technically revised.

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*

— *Part 10: Mashanza*

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

Minimex

Inyange Industries Ltd

Ishyo Food Ltd

La Fromagerie Ltd

National Industrial Research and Development Agency (NIRDA)

Sight and Life Rwanda

National Child Development Agency (NCDA)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Rwanda Standards Board (RSB) – Secretariat

INTRODUCTION

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.

Soft, unripened goat cheese have a tang (some much more sothan 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.

Soft, ripened goat cheese have velvety-looking white surface mold (from Penicillium album) like cow's milk Camembert or Brie. The center if 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.

Semi-soft, ripened goat cheese, white to off white body, smooth texture, with a typical sweet, clean goat and nutty flavor, free from strong, stale, rancid or foreign odours.

Firm, unripened goat cheese, are with a typical sweet, slightly tangy flavor and a firm, buttery consistency

Hard, unripened or ripened goat cheeses, firm textured and the curds are pressed. Aging matures and dries them.

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, *Loss on drying (moisture) in cheese. Method I*

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

AOAC 962.14, Beta-lactam Antibiotics in milk. Bacillus subtilis qualitative field disk assay

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

RS CXC 1, *Code of practice — General Principles for food hygiene*

RS CXC 57, *Code of hygienic practice for milk and milk products*

RS CXS 192 *General standard for food additives*

RS EAS 35, *Fortified edible salt — Specification*

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

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

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

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

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

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

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

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

RS ISO 5943, *Cheese and processed cheese products — Determination of chloride content — Potentiometric titration 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 6732, *Milk and milk products — Determination of iron content — Spectrometric method (Reference method)*

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

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

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 14501, *Milk and milk powder — Determination of aflatoxin M1 content — Clean-up by immunoaffinity chromatography and determination by high-performance liquid chromatography*

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*

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

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 Requirements

4.1 Raw materials

Milk obtained from goat

4.2 Permitted ingredients

Permitted ingredients shall be food grade and include the following:

a) acidulants complying with RS CXS 192

b) spices (for flavoured goat cheese only); and

c) salt complying with RS EAS 35

4.3 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.

4.4 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%		RS 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		RS 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%		AOAC 926.08
v.	Salt % Max	<1%		RS ISO 5943
vi.	pH value	4.2-4.4		RS ISO 5546

5 Food additives

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

6 Contaminants

6.1 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 962.14.

6.2 Veterinary drugs and pesticide residues

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

6.3 Aflatoxin

The level of Aflatoxin M1, shall not exceed 0.5 µg/kg when tested in accordance with RS ISO 14501.

6.4 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	RS 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

7 Hygiene

8.1 Goat cheese shall be processed, packaged, stored and distributed under hygienic conditions complying with RS CXC 1 and RS CXC 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 for goat cheese

S/N	Microorganism	Sampling plan		Limits		Test method
		n*	c*	m*	M*	
i.	*Salmonella spp* per 25g	5	0	0	0	RS ISO 6579-1
ii.	*E. Coli*, cfu/g	5	2	10^2	10^3	RS ISO 16649-2
iii.	*Listeria monocytogenes cfu/g*	*5*	*0*	*0*	*0*	RS ISO 11290-2

Assessment of the conformity of food to the microbiological requirements shall be based on the following criteria:

n; number of units making up the sample;

m: is the number of micro-organism colonies per gram or millilitre, and food is deemed to conform to the microbiological requirements if the number of colonies in all sample units is equal to or less than m;

M: is the maximum value for the number of micro-organism colonies permitted in food per gram or millilitre. Food is deemed not to conform to the microbiological requirements and to be unfit for human consumption if the number of micro-organism colonies is equal to or greater than the value of M in more sample units than permitted by c.

c: is the number of units in the sample in which the number of micro-organism colonies per gram or millilitre determined in the course of the study may be between m and M. Food is deemed to conform to the microbiological requirements if the number of microorganism colonies in the remaining samples is equal to or less than the value of m.

8 Packaging

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

9 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.

10 Sampling

11.1 Sampling shall be done in accordance with RS ISO 707.

11.2 In addition to the provision in RS ISO 707, sampling shall comply with RS ISO 8197 or RS ISO 5538 when the sampling is purposely for inspection.

Price based on 6 pages