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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 224 was prepared by Technical Committee RSB/TC 31, *Alcoholic beverages*.

This fourth edition cancels and replaces the third edition (RS 224: 2019), of which has been technically revised.

Committee membership

The following organizations were represented on the Technical Committee on *Alcoholic beverages* (RSB/TC 31) in the preparation of this standard.

AGASHINGURACUMU Ltd

African Society of Commerce and Management (ASCOM) Ltd

BUGANZA Wine Ltd

Centre de Formation et de Recherche pour le Development de technologies Appropriées (CFRDTA) Ltd

Cooperative de Valorisation de la Production de Banane (COVAPROBA) Ltd

Enterprise URWIBUTSO

GURA Business Company (GUBUCO) Ltd

IMPANO Products Ltd

INEZA Ayurvedic

Innovation in Production (INNOPRO) Ltd

Institut Catholique de Kabgayi-Business Incubation Center of Kabgayi (ICK BIKA Ltd)

Life Holistic Ltd

NSABIMANA Banana Wine Ltd

SOGONGERA Ltd

UWSS Ltd

Rwanda Food and Drugs Authority

Exalto Engineering and Supply Solutions Limited (2ES Ltd)

Rwanda Standards Board (RSB) – Secretariat

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Urwagwa — Specification

1 Scope

This Draft Rwanda Standard specifies the requirements, sampling and test methods for Urwagwa.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 972.25, *Lead in Food, atomic absorption spectrophotometric method*

AOAC 972.11 *Methanol in distilled liquors*

AOAC 999.10, *Lead, Cadmium, Copper, Iron and Zinc in Food, Atomic Absorption Spectrophotometry*

RS 164, *Honey — Specification*

RS CAC/RCP1, *Code of practice — General Principle for Food Hygiene*

AOAC 986.15, *Arsenic, Cadmium, Lead, Selenium and zinc in human and pet foods.*

AOAC 999.10, *Lead, Cadmium, Copper, Iron and Zinc in, Atomic Absorption Spectrophotometry*

RS ISO 16050, *Foodstuffs determination of aflatoxin B1, and cereals, nuts and derived products — High performance liquid chromatographic method the total content of aflatoxins B1, B2, G1 and G2 in*

RS ISO 17240, *Fruit and vegetable products — Determination of tin content — Method using flame Atomic Absorption Spectrometry*

RS ISO 1842, *Fruit and vegetable products — Determination of pH*

RS ISO 6888-2, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species) — Part 2: Technique using rabbit plasma fibrinogen agar medium*

RS EAS 104, *Alcoholic Beverages — Method of sampling and testing*

RS EAS 12, *Potable Water — Specification*

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

RS EAS 757, *Sorghum grains — Specification*

RS ISO 21527-1 *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1: Colony count technique in products with water activity greater than 0,95*

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

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

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.*

3 Terms and definitions

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

3.1

Urwagwa

alcoholic beverage derived from the fermentation of banana juice where sorghum grit has been added with or without honey and water

3.2

foreign matter

organic or inorganic material other than the described products

3.3

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

3.4

Butunda (B)

alcoholic beverage derived from the fermentation of banana juice where sorghum grit has been added without addition of honey or water

3.5

Inkangaza (I)

alcoholic beverage derived from the fermentation of banana juice (with or without addition of water) where sorghum grit has been added with addition of honey

3.6

Ur wagwa (U)

alcoholic beverage derived from the fermentation of banana juice where sorghum grit and water have been added without addition of honey

3.7

banana juice

unfermented but fermentable liquid obtained from the edible part of sound, appropriately mature and ripe banana fruits.

4 Types of Ur wagwa

Ur wagwa may be presented in the following types:

- a) Butunda;
- b) Ur wagwa; or
- c) Inkangaza

5 Requirements

5.1 Essential ingredients

The following ingredients shall be used for the production of Ur wagwa:

- d) banana juice complying with RS 358; and
- e) sorghum grains complying with RS EAS 757.

5.2 Optional ingredients

The following ingredients may be used

- f) honey complying with RS 164; and
- g) potable water complying with RS EAS 12.

5.3 General requirements

Urwagwa shall:

- a) be free from any harmful ingredients, substances, additives and any other contaminants injurious to health or any extraneous matter;
- b) be free from any added artificial colouring matter;
- c) have the characteristic appearance, taste and aroma of Urwagwa; and
- d) be free from any added alcohol.

5.4 Specific quality requirements

Urwagwa shall comply with the requirements given in Table 1 when tested in accordance with test methods specified therein.

Table 1 — Specific requirements for Urwagwa

S/N	Characteristic	Butunda (B)	Urwagwa (U)	Inkangaza (I)	Test method
i.	pH	$3.5 \leq B \leq 5.0$	$3.5 \leq U \leq 5.0$	$3.5 \leq I \leq 5.0$	RS ISO 1842
ii.	Ethyl alcohol content, %, v/v ^a	$10.0 \leq B \leq 15.0$	$3.0 < U \leq 9.0$	$7.0 < I \leq 15.0$	RS EAS 104
iii.	Total solid, %, m/v, max.	7.0	7.0	7.0	
iv.	Total non-dissolved (suspended) solids, %, max.	5	5	5	
v.	Total acidity, g/ L, max.	12.0	12.0	12.0	
vi.	Volatile acidity as acetic acid, g/L, max.	3.0	3.0	3.0	
vii.	Methanol, mg/L, max.	100	100	100	AOAC 972.11

^a Deviation from the declared alcohol content shall be less than 1 %

6 Contaminants

6.1 Pesticide residues

Urwagwa shall comply with the maximum residue limits for pesticides as established by the Codex Alimentarius Commission for the commodity used in the manufacture of Urwagwa.

6.2 Heavy metals

Urwagwa shall not contain heavy metals in levels exceeding the limits indicated in Table 2 when tested in accordance with test methods specified therein.

Table 2 — Limits for heavy metal contaminants in Urwagwa

S/N	Heavy metal	Limit	Test method
i.	Arsenic (as As), mg/L, max.	0.01	AOAC 986.15
ii.	Lead (as Pb), mg/L, max.	0.2	AOAC 999.10
iii.	Cadmium (as Cd), mg/L, max.	0.1	
iv.	Tin (as Sn), mg/L, max.	150	RS ISO 17240

6.3 Aflatoxin limits

Total aflatoxin in Urwagwa shall not exceed 10 µg/kg and aflatoxin B1 shall not exceed 5 µg/kg, when tested in accordance with RS ISO 16050.

7 Hygiene

7.1 Urwagwa shall be manufactured and handled in a hygienic manner in accordance with RS CAC/RCP 1.

7.2 When the alcohol content is less than 10 %, Urwagwa shall comply with limits for micro-organisms specified in Table 3 when tested in accordance with test methods specified therein

Table 3 — Microbiological limits for Urwagwa

S/N	Microorganism	Maximum limit	Test method
i.	Total viable count, cfu/mL	10 ²	RS ISO 4833-1
ii.	<i>Escherichia coli</i> , cfu/mL	Absent	RS ISO 16649-2
iii.	<i>Salmonella spp</i> per 25 mL	Absent	RS ISO 6579-1
iv.	<i>Staphylococcus aureus</i> per mL	Absent	RS ISO 6888-2
v.	Lactic Acid Bacteria	Absent	ISO 15214
vi.	Moulds, cfu/mL	10 ²	RS ISO 21527-1

8 Packaging

8.1 Urwagwa shall be packaged in food grade packaging materials that shall maintain the quality of the product including glass bottles, tin cans, aluminium foil and/or any other suitable material certified by an accredited laboratory to be safe for packaging alcoholic beverages.

8.2 The contents of the products shall occupy not less than 90 % of the total volume capacity of the container.

9 Labelling

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

- a) name of the product “Urwagwa”;
- b) type of Urwagwa, as “Inkangaza, Butunda, Urwagwa”;
- c) name and physical and postal address of manufacturer;
- d) net contents in millilitres or litres;
- e) ethyl alcohol content;
- f) date of manufacture;
- g) expiry date, if alcohol content is less than 10 %;
- h) storage instruction;
- i) statutory warnings;
- j) list of ingredients in descending order; and
- k) declaration that sugar was not added.

10 Sampling

Sampling shall be done in accordance with RS EAS 104.

Annex A
(normative)

Annex title

A.1 General

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Bibliography

[1] RS 224: 2019, *Urwagwa — Specification*

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