

DRAFT UGANDA STANDARD

**First Edition
2024-mm-dd**

Fresh ginger — Specification



Reference number
DUS DARS 948: 2024

Compliance with this standard does not, of itself confer immunity from legal obligations

A Uganda Standard does not purport to include all necessary provisions of a contract. Users are responsible for its correct application

© UNBS 2024

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior written permission from UNBS.

Requests for permission to reproduce this document should be addressed to

The Executive Director
Uganda National Bureau of Standards
P.O. Box 6329
Kampala
Uganda
Tel: +256 417 333 250/1/2
Fax: +256 414 286 123
E-mail: info@unbs.go.ug
Web: www.unbs.go.ug

National foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 210, of the Laws of Uganda, as amended. UNBS is mandated to co-ordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO),
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

This Draft Uganda Standard, DUS DARS 948: 2024, *Fresh ginger — Specification*, is identical with and has been reproduced from a Draft African Standard, DARS 948: 2024, *Fresh ginger — Specification*, and adopted as a Uganda Standard.

The committee responsible for this document is Technical Committee UNBS/TC 204, *Fruits, vegetables, tubers and processed products*.

This standard will cancel and replace US CODEX STAN 218: 1999, *Standard for ginger*.

Wherever the words, "African Standard" appear, they should be replaced by "Uganda Standard".

Fresh ginger — Specification



Table of contents

1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Description.....	2
4.1	Form and appearance	2
4.2	Odour and taste	2
5	Provisions concerning quality	2
5.1	Minimum requirements	2
5.2	Classification.....	3
6	Provisions concerning sizing	4
7	Provisions concerning tolerances.....	4
7.1	Quality tolerances	4
7.1.1	"Extra" Class	4
7.1.2	Class I	4
7.1.3	Class II	4
7.2	Size tolerances	4
8	Provisions concerning presentation	4
8.1	Uniformity.....	4
8.2	Packaging	5
9	Contaminants	5
9.1	Heavy metals	5
9.2	Pesticide residues.....	5
10	Hygiene	5
11	Marking or labelling	5
11.1	Consumer packages.....	5
11.2	Non-retail containers.....	6
11	Methods of sampling	6
	Annex A (informative) Recommendations relating to storage and transport of ginger	7
	Bibliography	8

Foreword

The African Organization for Standardization (ARSO) is an African intergovernmental organization established by the United Nations Economic Commission for Africa (UNECA) and the Organization of African Unity (AU) in 1977. One of the fundamental mandates of ARSO is to develop and harmonize African Standards (ARS) for the purpose of enhancing Africa's internal trading capacity, increase Africa's product and service competitiveness globally and uplift the welfare of African communities. The work of preparing African Standards is normally carried out through ARSO technical committees. Each Member State interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, Regional Economic Communities (RECs), governmental and non-governmental organizations, in liaison with ARSO, also take part in the work.

ARSO Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare ARSO Standards. Draft ARSO Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an ARSO Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ARSO shall not be held responsible for identifying any or all such patent rights.

This African Standard was prepared by ARSO/TC 05, *Horticulture*

© African Organisation for Standardisation 2024 — All rights reserved*

ARSO Central Secretariat
International House 3rd Floor
P. O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel. +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org

Web: www.arso-oran.org

* © 2024 ARSO — All rights of exploitation reserved worldwide for African Member States' NSBs.

Copyright notice

This ARSO document is copyright-protected by ARSO. While the reproduction of this document by participants in the ARSO standards development process is permitted without prior permission from ARSO, neither this document nor any extract from it may be reproduced, stored or transmitted in any form for any other purpose without prior written permission from ARSO.

Requests for permission to reproduce this document for the purpose of selling it should be addressed as shown below or to ARSO's member body in the country of the requester:

© African Organisation for Standardisation 2024 — All rights reserved

ARSO Central Secretariat
International House 3rd Floor
P.O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel: +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org
Web: www.arso-oran.org

Reproduction for sales purposes may be subject to royalty payments or a licensing agreement. Violators may be prosecuted.

Fresh ginger — Specification

1 Scope

This Draft African Standard applies to the rhizome of commercial varieties of ginger grown from *Zingiber officinale* Roscoe, of the *Zingiberaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Ginger for industrial processing is excluded

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.

ISO 1003:2008, *Spices — Ginger (Zingiber officinale Roscoe) — Specification*

CODEX STAN 218:1999 (Rev. 2005), *Standard for Ginger*

CODEX STAN 193:1995 (Rev.5:2009), *General Standard for Contaminants and Toxins in Foods*

CAC/GL 21, *Principles for the Establishment and Application of Microbiological Criteria for Foods*

ARS 53, *General principles of food hygiene — Code of practice*

CAC/RCP 44, *Recommended International Code of Practice for the Packaging and Transport of Tropical Fresh Fruit and Vegetables*

CAC/RCP 53, *Code of Hygienic Practice for Fresh Fruits and Vegetables*

ARS 56, *Labelling of pre-packaged foods — Specification*

CODEX STAN 193, *General Standards for Contaminants and Toxin in Foods and Feed*

ISO 874, *Fresh fruits and vegetables — Sampling*

3 Terms and definitions

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

3.1 clean

produce is practically free of any visible foreign matter

3.2 dry

the ginger rhizomes are free from external moisture except condensation due to cold storage

3.3

firm

the ginger rhizome is not shriveled or flabby and is unyielding to moderately heavy pressure

3.4

sound

produce not affected by rotting or deterioration such as to make it unfit for consumption

4 Description

4.1 Form and appearance

Ginger is the dried, peeled or unpeeled rhizome of *Zingiber officinale* Roscoe, in irregular pieces not less than in length, in slices, in small cut pieces or ground. The ginger shall be yellowish-white in colour. It can be peeled or scraped, then washed and dried. The ginger may be lime bleached. Ginger may be graded on the basis of place of production, type of processing or colour.

4.2 Odour and taste

The odour and taste of ginger shall be characteristic: slightly sharp, pungent, fresh, and lemony. The material shall not have a musty odour or a rancid or bitter taste.

5 Provisions concerning quality

5.1 Minimum requirements

5.1.1 In all classes, subject to the special provisions for each class and the tolerances allowed, the ginger must be:

- a) whole;
- b) sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- c) free from living insects and shall be practically free from visible dead insects or insect fragments. In the case of ground ginger, the contamination shall be determined by the method specified in ISO 1208.
- d) clean and practically free of any visible extraneous matter. The proportion of extraneous matter in ginger shall be not more than 1 % mass fraction and foreign matter shall be not more than 0.5 % mass fraction when determined by the method specified in ISO 927.
- e) practically free of damage caused by pests affecting the general appearance of the produce;
- f) free from coarse particles. Ground ginger shall be free from coarse particles and fibres. The fineness shall be agreed between the buyer and the seller.
- g) free of abnormal external moisture, and properly dried if washed, excluding condensation following removal from cold storage
- h) free of any foreign smell and/or taste;
- i) firm;

- j) free of abrasions, provided light abrasions which have been dried properly are not regarded as a defect; and
- k) sufficiently dry for the intended use; skin, stems and cuts due to harvesting must be fully dried.

5.2.2 The development and condition of the ginger must be such as to enable it:

- a) to withstand transport and handling; and
- b) to arrive in satisfactory condition at the place of destination.

5.2 Classification

Ginger is classified in three classes defined below:

5.2.1 "Extra" Class

Ginger in this class must be of superior quality. It must be characteristic of the variety and/or commercial type. The roots must be cleaned, well shaped and free of defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

5.2.2 Class I

Ginger in this class must be of good quality. It must be characteristic of the variety and/or commercial type. The roots must be firm, without evidence of shrivelling or dehydration and without evidence of sprouting. The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

Slight skin defects due to rubbing provided they are healed and dry and the total surface area affected not exceeding 10%.

5.2.3 Class II

This class includes ginger which does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in 4.2. The roots should be reasonably firm. The following defects, however, may be allowed, provided the ginger retains their essential characteristics as regards the quality, the keeping quality and presentation:

- a) skin defects due to rubbing, provided they are healed and dry and the total surface area affected not exceeding 15%;
- b) early signs of sprouting (not more than 10% by weight by unit of presentation);
- c) slight markings caused by pests;
- d) healed suberized cracks, provided they are completely dry;
- e) slight traces of soil; and
- f) bruises.

6 Provisions concerning sizing

Size is determined by the weight of the ginger.

Size Code	Weight (grams)
A	300
B	200
C	150

7 Provisions concerning tolerances

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

7.1 Quality tolerances

7.1.1 "Extra" Class

Five percent by number or weight of ginger not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

7.1.2 Class I

Ten percent by number or weight of ginger not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

7.1.3 Class II

Ten percent by number or weight of ginger satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

7.2 Size tolerances

For "Extra" Class 5%; and for Class I and Class II, 10%; by number or by weight of ginger not satisfying the requirements as regards sizing.

8 Provisions concerning presentation

8.1 Uniformity

The contents of each package must be uniform and contain only ginger of the same origin, variety, and/or commercial type, quality and size. The visible part of the contents of the package must be representative of the entire contents.

The weight of the heaviest hand (rhizome) may not be more than twice the weight of the lightest hand (rhizome) in the same package.

8.2 Packaging

Ginger must be packed in such a way as to protect the produce properly. The materials used inside the package must be neat, sound, clean, sealed packaging made of material which cannot affect the product quality or safety but which protects it from the ingress of moisture, loss of volatile matter or colour. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Ginger shall be packed in each container in compliance with CAC/RCP 44.

8.2.1 Description of containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the ginger. Packages must be free of all foreign matter and smell.

9 Contaminants

9.1 Heavy metals

Ginger shall comply with those maximum levels for heavy metals established by the Codex Alimentarius Commission for this commodity (CODEX STAN 193).

9.2 Pesticide residues

Ginger shall comply with those maximum pesticide residue limits established by the Codex Alimentarius Commission for this commodity.

10 Hygiene

10.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of CAC/RCP 1, CAC/RCP 53, and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with CAC/GL 21.

11 Marking or labelling

11.1 Consumer packages

In addition to the requirements of ARS 56, the following specific provisions apply:

11.1.1 Nature of produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to name of the variety and/or commercial type.

10.2 Non-retail containers

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment.

10.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional).

10.2.2 Nature of produce

Name of the produce if the contents are not visible from the outside. Name of the variety and/or commercial type (optional).

10.2.3 Origin of produce

Country of origin and, optionally, district where grown or national, regional or local place name.

10.2.4 Commercial specifications

- a) Class;
- b) Size (size code or minimum and maximum weight in grams);
- c) Number of units (optional);
- d) Net weight (optional).

10.2.5 Official inspection mark (optional)

11 Methods of sampling

Sampling shall be done in accordance with ISO 874.

Annex A (informative)

Recommendations relating to storage and transport of ginger

A.1 The containers of ginger should be stored in covered premises, well protected from sun, rain and excessive heat.

A.2 The store room should be dry, free from objectionable odours, and proofed against entry of insects and vermin. The ventilation should be controlled so as to give good ventilation under dry conditions and to be fully closed under damp conditions. In a storage warehouse, suitable facilities should be available for fumigation.

A.3 The containers should be so handled and transported that they are protected from rain, from the sun or other source of excessive heat, from objectionable odours and from cross-infestation, especially in the holds of ships.

Draft African Standard for comments only — Not to be cited as African Standard

Bibliography

CODEX STAN 218-1999, Standard for ginger

Draft African Standard for comments only — Not to be cited as African Standard

Draft African Standard for comments only — Not to be cited as African Standard