

# DRAFT UGANDA STANDARD

First Edition  
2016

---

---

## Chia seed — Specification

---

---



Reference number  
DUS1603: 2016

© UNBS 2016

**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 2016

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: 256 414 505 995  
Fax: 256 414 286 123  
E-mail: [unbs@infocom.co.ug](mailto:unbs@infocom.co.ug)  
Web: [www.unbs.go.ug](http://www.unbs.go.ug)

## Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda. UNBS is mandated to co-ordinate the elaboration of standards and is

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



# Chia seed — Specification

## 1 Scope

This draft Uganda standard specifies the requirements, sampling and test methods for chia seed (*Salvia hispanica*.L) for human consumption.

This standard does not apply to seed as a planting material.

## 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.

CAC/GL 1, *General guidelines on claims*

CAC/GL 2, *Guidelines on nutrition labelling*

CAC/GL 23, *Guidelines for use of nutrition and health claims* ISO 605, *Pulses — Determination of impurities, size, foreign odour, insects, and species and variety — Test methods*

US EAS 39, *Code of Practice for hygiene in the food and drink manufacturing industry*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

ISO 2171, *Cereals, pulses and by-products — Determination of ash yield by incineration*

ISO 5498, *Agricultural food products — Determination of crude fibre content — General method*

ISO 6579, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection of Salmonella spp*

ISO 7251, *Microbiology of food and animal feeding stuffs — Horizontal method for the detection and enumeration of presumptive Escherichia coli — Most probable number technique*

ISO 11085, *Cereals, cereals-based products and animal feeding stuffs — Determination of crude fat and total fat content by the Randall extraction method*

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

ISO 20483, *Cereals and pulses — Determination of the nitrogen content and calculation of the crude protein content — Kjeldahl method*

ISO 21527-2, *Microbiology of food and animal feedstuffs — Horizontal method for the enumeration of yeasts and moulds — Part 2: Colony count technique in products with water activity less than or equal to 0.95*

ISO 24333, *Cereals, and cereal products — Sampling* US 738, *General standard for contaminants and toxins in food and feed*

### 3 Terms and definition

For the purposes of this standard the following terms and definition shall apply:

- 3.1 Chia seed**  
small oval seeds of the species *Salvia hispanica*.L..
- 3.2 Filth**  
impurities of animal origin, including dead insects
- 3.4 foreign extraneous matter**  
all organic and inorganic material (such as sand, soil, glass) other than sesame, broken sesame and other grains
- 3.4.1 inorganic matter**  
stones, glass, pieces of soil and other mineral matter
- 3.4.2 organic matter**  
any animal or plant matter (seed coats, straws, weeds) other than chia seed, damaged chia seed, other grains and seeds.
- 3.5 food grade materials**  
any material which when it comes in contact with food or is the area near food is unlikely to contaminate food with harmful materials
- 3.6 noxious seeds**  
are seeds which, if present in quantities above a certain limit, can have a damaging or dangerous effect on health, sensory properties or technological performance

### 4 Requirements

#### 4.1 General quality factors

Chia seed shall

- a) be practically free from filth in amounts that may represent a hazard to human health,
- b) be free of off flavours and odours,
- c) be practically free from any foreign matter, sand, stalks, plant debris and
- d) have a colour characteristic of the variety

e) be free from toxic or noxious seeds that are commonly recognized as harmful to health

## 4.2 Specific quality factors

Chia seed shall comply with the compositional requirements specified in Table 1.

**Table 1 — Composition requirements for chia seed**

Characteristic	Level	Method of test
Moisture content, % by mass, max	8.0	US ISO 24557
Filth, %,m/m, max	0.1	US ISO 605
Total Ash, %, m/m	4 - 6	US ISO 2171
Crude fibre, %, m/m, min	18	US ISO 5498,
Crude Fat, %, m/m, min	30	US ISO 659
extraneous matter,%, max	0.2	US ISO 605

## 5 Contaminants

### 5.1 Pesticide residues

Chia seed shall conform to those maximum residue limits for pesticides established by the Codex Alimentarius Commission for this commodity.

### 5.2 Other contaminants

Chia seed shall conform to those maximum levels stated in table 2 below. .

**Table 2 — Heavy metal contaminants in chia seed**

S/N	Heavy metal	Limits, max. mg/kg	Test method
i.	Cadmium	0.1	US ISO 6869
ii.	Lead	0.2	
iii.	Arsenic	0.1	
iv.	Mercury	0.5	

### 5.2 Aflatoxin

The maximum content of aflatoxins in Chia seed when determined in accordance with the method described in ISO 16050 shall not exceed 5 µg/kg (ppb) for aflatoxin B<sub>1</sub> and 10 µg/kg for total aflatoxins

## 6 Hygiene

**6.1** Chia seed shall be produced, prepared and handled in accordance with US EAS 39 .

**6.2** chia seed shall be free from microorganisms in amounts which may represent a hazard to health and shall not exceed the limits specified in Table 3.

**Table 3 — Microbiological limits in chia grain**

S/No	Type of micro-organism	Limits	Test method
i)	Yeasts and moulds, per g, max.	10 <sup>4</sup>	ISO 21527-2
ii)	<i>S. aureus</i> /g, max,	10 <sup>3</sup>	
iii)	<i>E. coli</i> , per g, max	Not detectable	ISO 7251
iv)	<i>Salmonella</i> , per gram, max	absent	

NOTE : E.coli; this is an indicator of faecal contamination

## 7 Packaging

Chia seed shall be packaged in food grade materials that will safeguard the hygienic, nutritional and organoleptic qualities of the product. The packaging materials shall comply with the legislation requirements of the destination country.

## 8 Weights and measures

Chia seed shall be packaged in accordance with the Weights and Measures requirements of the destination country. It is recommended by International Labour Organization (ILO) to package in the 50 kg bag or container.

## 9 Labelling

**9.1** In addition to the requirements of EAS 38, the following labeling requirements shall apply and shall be legibly and indelibly marked:

- a) common name of the food to be declared on the label shall be 'chia grain';
- b) net contents by weight in metric ('System International') units;
- c) name and physical address of the manufacturer / distributor;
- d) country of origin;
- e) lot /batch identification;
- f) shelf life: best before/use by date
- g) statement 'Food for Human Consumption' shall appear on the package;
- h) storage conditions as 'Store in a cool dry place away from contaminants':
  - i) instructions on disposal of used package;
  - ii) crop year; and



iii) packing date.

## **9.2 Nutrition labelling**

The names and the amount of the nutrients added in the chia seed shall be declared on the label in accordance with CAC/GL 2.

## **9.3 Nutrition and health claims**

Chia seed may have claims on the importance of the added nutrients in nutrition and health. Such claims when declared shall be consistent with CAC/GL 1 and CAC/GL 23.

## **10 Methods of sampling**

Sampling shall be carried out in accordance with ISO 24333

PUBLIC REVIEW DRAFT

## Bibliography

- [1] CBI Product fact sheet: chia seeds in the EU and EFTA,  
EU REGULATIONS

PUBLIC REVIEW DRAFT

## Certification marking

Products that conform to Uganda standards may be marked with Uganda National Bureau of Standards (UNBS) Certification Mark shown in the figure below.

The use of the UNBS Certification Mark is governed by the Standards Act, and the Regulations made thereunder. This mark can be used only by those licensed under the certification mark scheme operated by the Uganda National Bureau of Standards and in conjunction with the relevant Uganda Standard. The presence of this mark on a product or in relation to a product is an assurance that the goods comply with the requirements of that standard under a system of supervision, control and testing in accordance with the certification mark scheme of the Uganda National Bureau of Standards. UNBS marked products are continually checked by UNBS for conformity to that standard.

Further particulars of the terms and conditions of licensing may be obtained from the Director, Uganda National Bureau of Standards.



PUBLIC REVIEW DRAFT

---

---

ICS nn.nnn.nn

Price based on nn pages