

# DRAFT UGANDA STANDARD

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## Pre-cooked dehydrated pulse products — Specification

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## 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, as amended. 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 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 key stakeholders including government, academia, consumer groups, private sector and other interested parties.

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.

The committee responsible for this document is Technical Committee UNBS/TC 2, *food and agriculture*, Subcommittee SC3, *cereal. Pulses and related products*

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# Pre-cooked dehydrated pulse products — Specification

## 1 Scope

This Draft Uganda standard specifies the requirements, sampling and test methods for pre-cooked dehydrated pulse products for human consumption.

## 2 Normative references

The following referenced documents 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.

US EAS 38, *General standard for labelling of pre-packaged foods*

US EAS 38, *Code of practice for hygiene in the food and drink manufacturing industry*

US 98, *Cereals and cereal products — Determination of moisture content — Routine method*

US 45, *General standard for food additives*

US EAS 803, *Nutrition labelling— Requirements*

US EAS 804, *Claims— General requirements*

US EAS 805, *Use of nutrition and health claims— Requirements*

US ISO 4831, *Microbiology of food and animal feeding stuffs —Horizontal method for the detection and enumeration of coliforms — Most probable number technique*

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

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

US ISO 1871, *Agricultural food products — General directions for the determination of nitrogen by the Kjeldahl Method*

US ISO 712

US ISO 5985

US ISO 24333, *Cereals, and cereal products — Sampling*

US ISO 2171:2007, *Cereals, pulses and by-products - Determination of ash yield by incineration*

US ISO 6633, *Fruits, vegetables and derived products - Determination of lead content Flameless atomic absorption spectrometric method*

US ISO 6561-1, *Fruits, vegetables and derived products - Determination of cadmium content Part 1: Method using graphite furnace atomic absorption spectrometry*

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1

##### **foreign matter**

any organic or inorganic matter other than the pulse(s) referred to in the product.

#### 3.2

##### **Insect infestation**

the presence of insects (live or dead), their parts and any of their developmental stages (eggs, larva, pupa, nymphs and adults).

#### 3.3

##### **Pulses**

edible seeds from plants in the legume family e.g. beans, peas and others.

### 4 Description

Pre-cooked dehydrated pulses are products processed to shorten their cooking time to increase nutrient bio-availability. The products can be made from a single pulse or a mixture.

### 5 Requirements

#### 5.1 General requirements

Pre-cooked dehydrated pulse products shall;

- a) be from a pulse or a mixture of pulses conforming to the relevant Uganda standards;
- b) have the colour, flavour and aroma characteristic of the pulse(s) used;
- c) shall be essentially free from foreign material;
- d) be free from rancid and other objectionable, foreign or undesirable tastes, odour and colours;
- e) not contain any foreign matter such as insects, fungi, dirt or other contaminants;
- f) be wholesome and fit for human consumption in all aspects.

#### 5.2 Specific requirements

Pre-cooked dehydrated pulse products shall conform to the specific requirements when tested with the methods stated in table 1 below.

**Table 1: Specific requirements for pre-cooked dehydrated pulse products.**

s/n	Parameter	Requirement	Method of test
i	Moisture, by mass, % mass, max.	10	US ISO 712
ii	Total ash, on dry matter basis, % mass, max	4.0	US ISO 2171
iii	Acid insoluble ash, on dry matter basis, % mass, max	0.4	US ISO 5985

## **6 Food additives**

Only the food additives permitted in US 45 may be used.

## **7 Contamination**

### **7.1 Pesticide**

Pre-cooked dehydrated pulse products shall comply with those maximum pesticide residue limits established by CODEX Alimentarius commission for similar commodities.

### **7.2 Heavy metals**

Pre-cooked dehydrated pulse products shall comply with those maximum heavy metal limits established by CODEX Alimentarius commission for similar commodities.

### **7.3 Aflatoxin**

Pre-cooked dehydrated pulse products shall conform to comply with the heavy metal limits in Table 2 when tested in accordance with test methods specified therein those maximum limits for heavy metals established by the Codex Alimentarius Commission as specified in Table 2.

Table 2 — Heavy metals limits for instant cereal and cereal based flour

S/No	Heavy metal	Limits (mg/kg), max	Test methods
i)	Arsenic(As)	0.1	US ISO 27085
ii)	Lead (Pb)	0.2	US ISO 6633
iii)	Cadmium (Cd )	0.1	US ISO 6561-1 or ISO 6561-2

## **8 Hygiene**

**8.1** Pre-cooked dehydrated pulse products shall be produced, prepared and handled in accordance with US EAS 39.

**8.2** Pre-cooked dehydrated pulse products shall conform to the microbial limits stated in table 2:

**Table 2: Microbial requirements for pre-cooked dehydrated pulse products**

s/n	Requirement	Limits	Test method
1	Total plate count, cfu/m	10,000	US ISO 4833-1
2	E.coli count per g, Max	Absent	US ISO 11866,
3	Salmonella sp.	Absent	US ISO 6785
4	Yeast and mould count per g, max	1,000	US ISO 661

## **9 Packaging**

Pre-cooked dehydrated pulse products shall be packaged in food grade containers which will safeguard the hygienic, nutritional, and organoleptic qualities of the product.

## **10 Labelling**

9.1 In addition to the requirements in US EAS 38, each package shall be legibly and indelibly labelled with the following:

- i. The name of the product shall be “pre-cooked dehydrated X” where X is the major pulse used;
- ii. Brand name/trade name;
- iii. The name and physical address of the manufacturer;
- iv. Lot identification;
- v. batch/code number Net;
- vi. volume in metric units;
- vii. List of ingredients in descending order;
- viii. list of any additives used;
- ix. Date of manufacture;
- x. Country of origin;
- xi. Storage conditions;
- xii. Expiry date.

### **10.2 Nutrition labelling**

The amount of micronutrients in pre-cooked pulse flour shall be declared on the label in accordance with US EAS 803.

### **10.3 Nutrition and health claims**

Pre-cooked pulse flour may have claims on the importance of the micronutrients in nutrition and health. Such claims when declared shall be consistent with US EAS 804 and US EAS 805.



## **11 Sampling**

Methods of sampling of pre-cooked dehydrated pulse products shall be in accordance with US ISO 24333.

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## **Bibliography**

- [1] US 1676:2017, PULSE FLOUR SPECIFICATION
- [2] Food Standards Regulation, Division - Cereals, pulses, legumes and derived products  
And Vegetable Proteins

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## 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.

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